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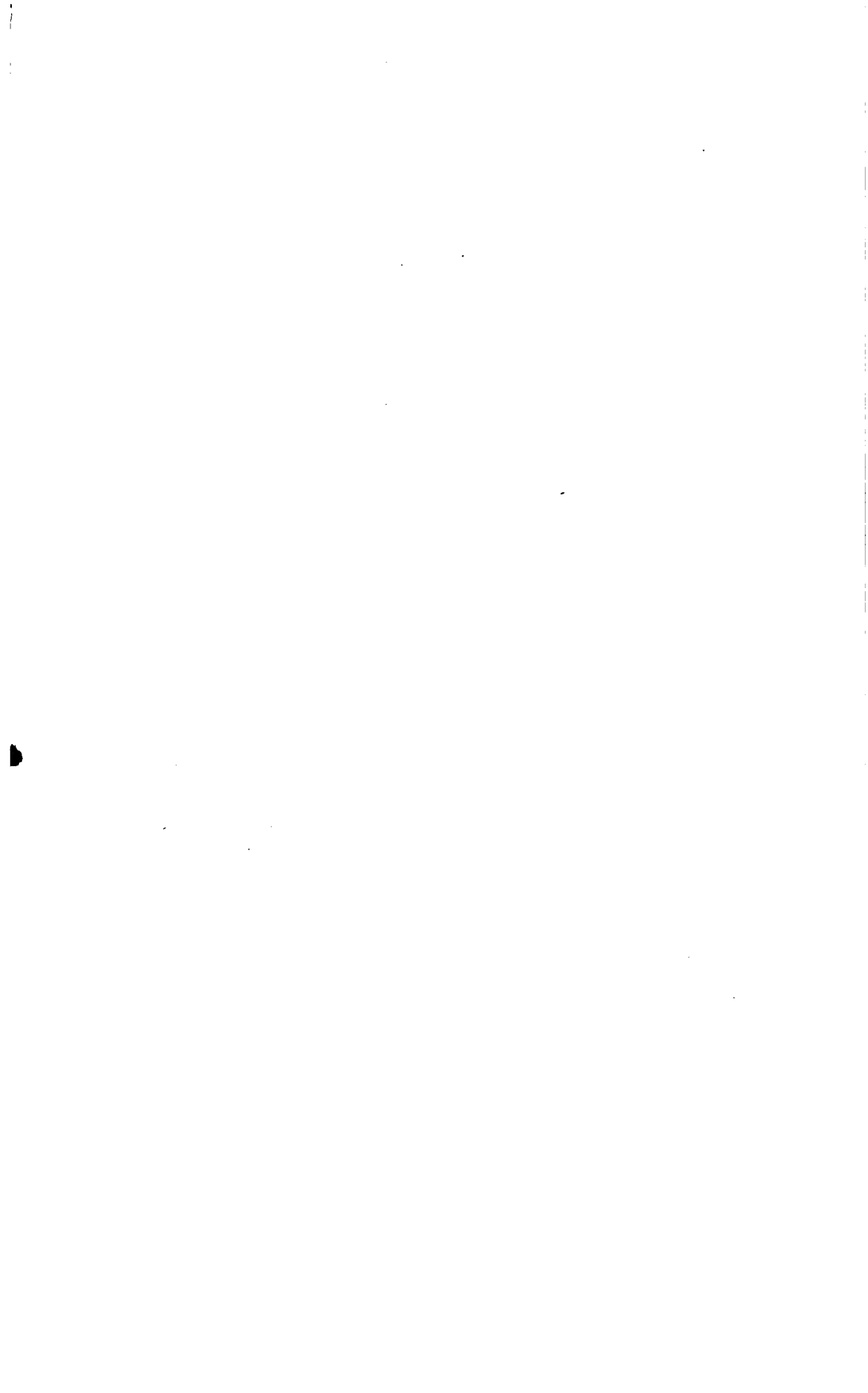


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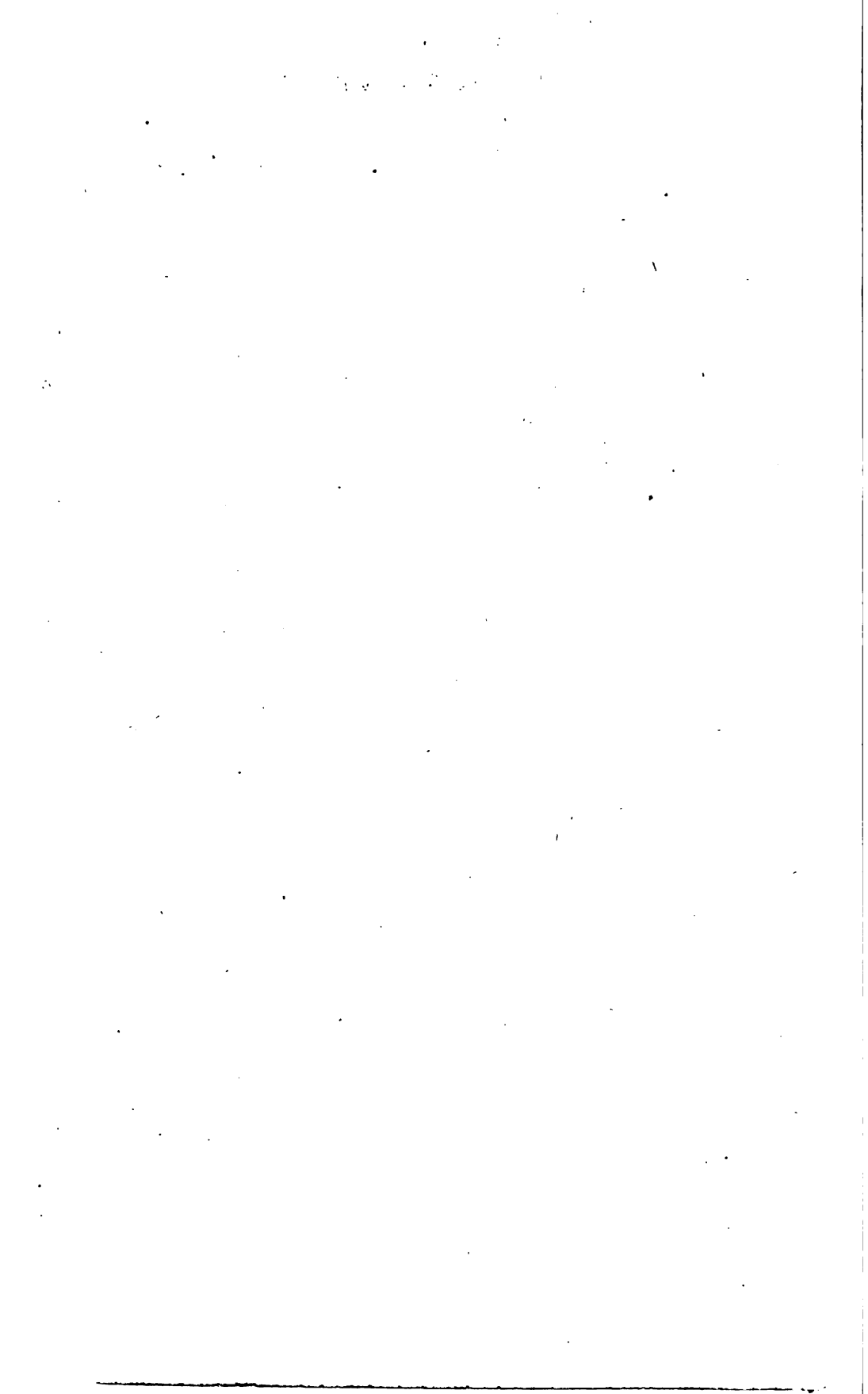
SECCOLI.

THE

ADDRESS IN SURGERY

BY

PHILIP CHILWELL DE LA GARDE, F.R.C.S.



Henry W. Ireland, Esq., M.D. F.R.S.
with the author's best compliments,
THE

ADDRESS IN SURGERY

Delivered before the British Medical Association

AT TORQUAY, MDCCCLX.,

BY

PHILIP CHILWELL DE LA GARDE, F.R.C.S.

*Senior Surgeon of the Devon and Exeter Hospital, and of
the West of England Eye Infirmary.*

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1860.



TO

CHARLES RADCLYFFE HALL, ESQUIRE, M.D.,

PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION,

TO

THE VICE-PRESIDENTS, AND COUNCIL,

THIS ADDRESS IN SURGERY,

SPOKEN AT THE ANNUAL GENERAL MEETING

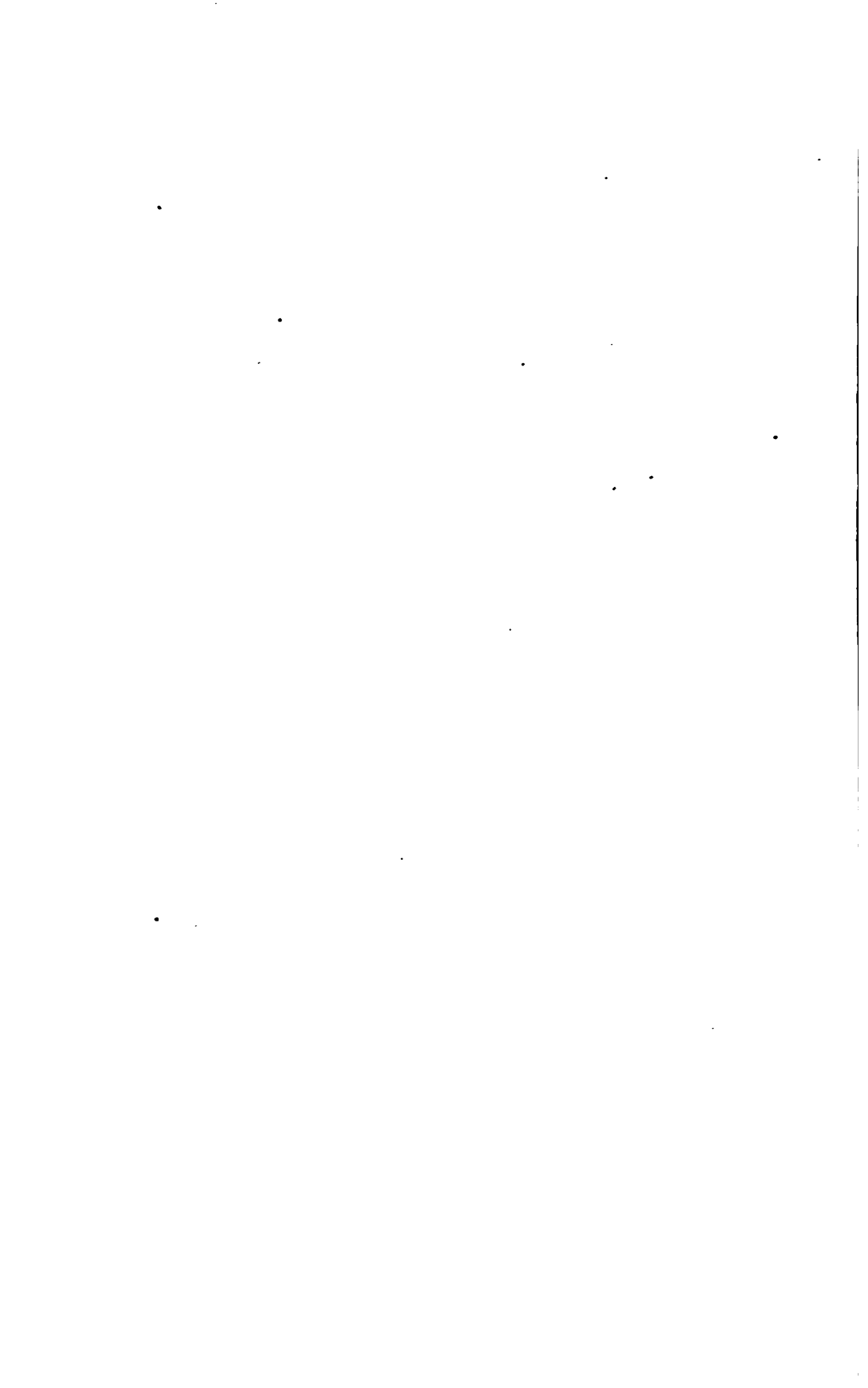
MDCCCLX.,

AND PRINTED BY ITS DESIRE,

IS,

WITH EVERY FEELING OF ESTEEM AND REGARD,

RESPECTFULLY INSCRIBED.



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The following "Address in Surgery" is not an essay carefully written, but a speech faithfully reported. Should it be objected that the style is colloquial, the expressions homely, the sentences inartificial, or the tone and treatment below the standard of a scientific discourse, the author would explain that his ambition never aimed at philosophic elevation; that having maintained the attention of his audience by the delivery of a plain narrative, he doubts whether he should now succeed better by adopting a graver or more stilted phraseology; and he feels that, in responding to the call for publication, it is more candid to take his notes, such as they were, and to write as he previously had spoken.

Mr. President and Gentlemen,

When it was first suggested to me that I should deliver this Address in Surgery, I hesitated to accept the honour, and the responsibility, until I had enquired what it really was which might be expected of me. For if it had been the retrospective address of the earlier years of the Association, it would not, I own, have agreed with my inclinations, or habits, or engagements. Men, as they advance in age, are rather disposed to revert to speculations which (subject to the critical eye of an intelligent and industrious profession) have, under their own observation, assumed shape and consistency, and to leave (however ready they may be to adopt obvious improvements) the crudeness and ingenuity of the day to be searched out and sifted by their juniors. But when I was informed that I might exercise my own discretion, and treat the subject as I thought best, I determined on this—which, I hope, may meet your approval—to take up various subjects of Surgery (the whole would clearly be impossible) and to illustrate them by the practice of the Devon and Exeter Hospital mainly, not exclusively,—for I shall have occasion to draw from other sources—and when I thus deviate, I will inform you, that each one may have his due share of praise or blame as you may award.

Now I may state generally that the practice of the Devon and Exeter Hospital is essentially conservative, as much so, perhaps, as is allowable—for I need hardly insist, that great sagacity and practised intelligence are required to decide how far it may be justifiable to imperil a life to save a limb. Be this practice ever so praiseworthy, the present surgical staff has no claim to originality. They accepted it as a tradition from those who preceded them.

When I entered this Hospital as a student, now well-nigh half a century since, the ruling spirits in Surgery

were two gentlemen who rejoiced in the names of Patch and Peppin. Fine examples were they of the highest class of provincial Surgeons. They had been Surgeons of our Hospital thirty years and upwards, each of them. They had been the pupils of John Hunter, and I need not argue that so thoughtful a man never sanctioned an inconsiderate operation. They were succeeded by Barnes—Sam Barnes—perhaps, take him for all in all, during the greater part of his life the best Surgeon I ever knew, anywhere; and James, your Vice-President, so thoroughly known to you, and therefore, as so known, so highly esteemed by you, and who still happily remains to aid us with his vast experience as our Consulting-Surgeon.

These had been the pupils of John Abernethy, as indeed, for that matter, had been Mr. Edye and myself—but we were of a later generation. Now Mr. Abernethy, in introducing that section of his lectures which related to operative surgery, would address his class to this purpose,—“There have been men who have forced their way to wealth and notoriety by operations it would be hard to justify. I entreat you always to recollect, that a Surgeon with a knife in his hand is in a state of humiliation, he operates because he cannot cure.” Such were the principles inculcated by that eminently humane Surgeon, whom the vulgar of all classes—high and low—stigmatized as coarse and unfeeling; and why?—because he habitually used the language of Shakespeare and Ben Jonson familiarly as his own; and the vulgar knew it not—How should they?

Dislocations and Fractures. These are no exciting episodes in the practice of a great hospital; and yet I have sometimes thought that their proper treatment is, in the broad statistics of surgery, more important than the brilliant performance of what are usually termed the greater operations. Be it remembered, that for one internal iliac tied there are a million of broken bones.

Dislocations we may conveniently divide into those which require pulleys and chloroform, and those which do not. And, speaking of chloroform as the exponent of anæsthetics, I may as well say what I think of it, and have done with it, or it will be sure to meet us at every turn. Now I do believe, that chloroform is the greatest boon ever conferred on operator, or on patient. But inasmuch as it is attended

with some degree of danger, I would restrict its use to cases of intense pain, for intense pain may itself be dangerous ; or of protracted suffering, for protracted suffering may exhaust dangerously ; or to certain special cases where there may be peculiar grounds for disarming the patient of all muscular power. If it be given causelessly, merely because a patient demands it, it is an improper submission to a mere caprice ; if to earn a reputation for humanity, it simply takes its place by the side of other quackeries.

The physicians, I observe, are careful in examining the chest before chloroform is given, and very properly ; for a diseased heart, or a diseased lung might be much more easily puzzled in its action than if it were sound. But the death is for the most part quite sudden—so sudden that the first notice the operator has, is, that the blood ceases to flow under his knife. I do not think we are secure from sudden death when we are satisfied of the soundness of these organs. Indeed experience shows that chloroform may be used several times with no ill effect, and then, with no apparent change of circumstances, kill thus suddenly. I think the cause of death is more subtle, and that a memorandum which I have here of the five first cases in which I used anæsthetics—ether was the agent, but the principle involved is the same—may afford us some light in tracing it. The first preserved sight, hearing, and intelligence, but was wholly unconscious that a severe operation was proceeding. The second retained sight, hearing, and intelligence ; watched the operation which he did not feel, and made a judicious suggestion upon it. The third was at first dreamy, and afterwards insensible as though in a calm sleep. In the fourth the senses of sight, hearing, and feeling were totally obscured—yet intellect was preserved, for he preached a sermon with some coherency. I afterwards found he was a local preacher. The fifth was conscious of severe pain, but of nothing else. These patients, except the two first, had not any recollection of what had passed. I believe, if there be one doctrine more generally admitted by physiologists than another, it is that the brain is a very compound organ, and that its several parts minister to different faculties. Now let us suppose that the anæsthetic instead of affecting the anterior lobes, or the

posterior lobes, or the optic thalami, affected that mysterious part, where the essence of life itself seems to reside, the medulla oblongata, the suddenness of the death would be explained. It has been well observed by an eminent author, that the person who is reduced to a stertorous and insensible condition is at the point of death, and, if the chloroform were still recklessly or carelessly given, death would ensue. This I conclude very rarely happens; but there is another danger of which I have had two serious examples within the last six weeks. The first was a delicate boy, to whom chloroform was given to steady an oscillating eye in which I wished to make an artificial pupil. He recovered quickly so as to speak to us, and be quite conscious, when he fainted; and these faintings, in spite of free air, splashing with water, and stimulants, continued to return for four hours. I believe I saved his life by applying mustard poultices over his whole chest and abdomen. This child, I have said, was delicate; but the other patient was a fine cheerful girl, without an atom of hysterics in her. She was eighteen years old, and had had an eye removed by clipping round the conjunctiva. She recovered her consciousness, but presently after fainted. She remained in a very precarious state for nearly two hours. I do therefore hold that chloroform should not be given on insufficient grounds.

I return now to dislocations. In old dislocations, by which I mean dislocations, that have remained unreduced, for a month or more, great and long-continued force will for the most part be required, whatever care may have been taken to break down adhesions. The force of traction is so great that I have known several fatal results (even where the reduction has been effected) from inflammation, or erysipelas. In one of these cases the humerus had been dislocated on the dorsum scapulæ in infancy, as it afterwards appeared. This did not come out at the moment, and enormous force was used for reduction without effect. The patient died of erysipelas, and, on examination after death, a well-formed joint was found on the scapula. I do not wish to bring up a man, long dead, for judgment before you—but it was fatal to the patient, and discreditable to the surgeon. Another case occurred in 1818, when I was house-surgeon of St. Bartholomew's. One of the

dressers, who laboured under a delusion that he was born to eminence, gave out that he would take charge of his own accidents. He succeeded so far that, without information sent to me, he had tried for nearly an hour to reduce a dislocated shoulder. Fortunately the pulleys were in my keeping. I came in by chance, and found him and his associates in a very undignified perspiration. They were tired and docile—willing to be helped. The general position of the arm, with the elbow resting against the ribs, convinced me there was no dislocation. I was confidently referred to the head of the humerus in the axilla—but I at once demonstrated a head in the glenoid cavity. I carried a reluctant conviction by adducing the giant with two heads in the nursery tale ; so it was resolved, *nem. con.*, that the humerus had a head where it should be, and an exostosis in the axilla, where it ought not to have been. We sent the man to his ward, without further efforts to dislodge the true head in favour of the pretender. This patient, I should say, escaped with his life. In old cases, which, after ten or twelve weeks, are not always satisfactory, owing to alterations in the separated portions of the joint, every assistance to diminish resistance should be rendered, and chloroform, or some equivalent, is called for.

The posterior dislocations of the hip require chloroform and pulleys. I got my hint early in life. A girl of twelve years was brought into St. Bartholomew's, with the thigh-bone dislocated on the back of the ilium. The accident had scarcely happened half an hour. There were several dressers and pupils, besides beadles and others, on the spot. This is a mere child I thought, and as recent a case as may be, and surely, with so many to help, pulleys are not wanted. But she very nearly beat us. My friends were weary enough before it was reduced, and if they had given in, we should have been in a fine plight. Nothing is more injurious than an unsuccessful attempt at reduction. The muscles implicated are worked up to the utmost spasmodic resistance by the efforts which have been made, and the reduction becomes more difficult than ever. Anæsthetics were unknown in those days, but I determined on pulleys for the future. Five or six years since, I had a dislocation which I do not believe could have been successfully treated without chloroform. A very powerful young man of twenty,

(he was one of the largest men for his age I have ever seen,) was thrown off a locomotive. The head of the femur was lodged on the back of the ilium, and the leg on the same side (the left) had a compound fracture about three inches above the ankle. I had the leg very compactly put up in splints, and then, getting him under chloroform, proceeded to reduce the dislocation. It took two men, with a pulley of six sheaves, twenty minutes to draw the head into the acetabulum; although I stood over him latterly, and lifted the femur with all my power. He was quite well in three months.

It may seem an impertinence, in the presence of such veteran surgeons, as I see before me, to recommend any particular mode of manipulation. But dislocations of the hip fortunately do not occur every day, and I have frequently observed some little doubt and hesitation as to the mode of connecting the pulley, or other tractive apparatus. The clove-hitch is the favourite, but it will happen sometimes, that nobody recollects how it is formed, added to which, I have seen it cut severely. The following method, with an improvement from the time gutta percha was introduced, I have used ever since I was a pupil at Exeter. Having bent the limb, I mould a shield of gutta percha at the back of the thigh and leg; under this I place a pad; I then take a runner, or long towel, and having folded it to a convenient breadth, I apply its middle to the thigh, as near the patella as I can; then carrying the two halves round to the ham, I cross them upon the gutta percha shield, and bring them to the front of the knee. Here the two are firmly bound together by a strong ribbon or tape. On this the hook of the tackle is hung. To prevent the connecting ribbon or tape from slipping, the extreme ends of the towel are bent back, and connected together on the shield just below the ham. An assistant must keep the limb thoroughly bent. The same method may be used for the elbow in cases of dislocated shoulder.

The dislocation of the patella upon its edge is the only remaining dislocation, if, perhaps, we except that of the ankle forwards, which requires chloroform. I never could comprehend the mechanical difficulty of this dislocation of the patella, but there can be no doubt about it.

The dislocations of the hip anteriorly—that is, when the

head of the thigh-bone rests on the os pubis, or obturator foramen—are easy of reduction. Last month, when I was in town dining at the Fellows' dinner, or perhaps, I ought rather to say, at the Election of the Council which took place the same morning, one of these dislocations came in. It was reduced by my colleague, Mr. Edye, without any difficulty. Some few years since, I had a double dislocation; the head of each femur was thrown on its obturator foramen. A man was working in a clay-slate quarry, stooping with his legs apart, when a large quantity of the shillat, or rubbish, rolled down upon him, struck him on the loins, threw him forward, and by its weight dislocated both hips. His appearance was the oddest ever seen. He was flattened, and spread out in the most extraordinary manner; everyone as they came in one after the other, said, "how like a frog." I proposed laying him on a table on his back, carrying stout runners from his perineum round each thigh, and nailing them to the table nearly opposite his shoulders. I should then have connected his legs together with a strong band, and drawing smartly upon this, I am confident I should have reduced both dislocations. I was dissuaded from this method, which I regret, because I lost an opportunity of achieving distinction which will not recur. Had I reduced two hips at one haul, I might have set myself up for a notability, and safely defied competition. As I was advised, I proceeded in the common way, and applied pulleys to the right side. My friend Edye, who ought to have a patent for reducing double dislocations of the hip, desiring to keep the patient steady, threw his weight and strength on the opposite, or left side. The right side was easily reduced of course, and then to our great amusement and satisfaction—the patient enjoying it more than any one—we found that the left side had been reduced inadvertently.

Recent dislocations of the elbow, are easily reduced. Perhaps the best method of reducing the shoulder, is to put the heel, or rather the hollow of the foot, into the axilla. Then draw the arm strongly, and if you will cant your foot powerfully with the two tibial muscles, in it will go. Should the patient be a strong man, an assistant might, at the critical moment, push the elbow smartly towards the body. I know nothing against this method, except that

there is something undignified, in seeing a sage philosopher playing pully-haully with his patient. It seems to invite the comment on Trinculo and Caliban "Two voices and four legs, what a delicate monster." I may mention, that when I was a pupil at the Exeter Hospital I saw that rare dislocation, the humerus on the back of the scapula. I had certainly more trouble in reducing it, than in common cases. When I went to town, two months after, the patient, an elderly woman, was making a very slow recovery, I could never learn any more of her, so I conclude she did well at last.

You would be amused were I to describe the complicated apparatus of my early days, in which a fractured limb was put up. It was scarcely practicable to convey the tray on which were arranged splints, twists of tow, flannels, and eighteen-tails under the broken leg without putting everything out of order; I suppose all this, with its deluge of Goulard wash, is abandoned everywhere. I take it I saw the first splint that was fitted with a pad, attached to it by that which women call "herring-stitching." It was by a drunken nurse at St. Bartholomew's. I observed it, and the woman, having a bad conscience, apologized, thinking I was angry. I made it known as a simple but valuable invention as much as I could: I suppose everybody does it now. At the Exeter Hospital, I believe, broken thighs are always put up with a long, straight splint. I have a mode of my own, which slightly differs from that of the other surgeons, and I will describe it. When I became House-Surgeon of St. Bartholomew's, in 1818, I asked Mr. Vincent if he would allow me to treat his patients on the new plan, which I explained to him. He admitted that nothing could be well worse than the results of short splints and the bent position, and that I might try. I had read a great deal of French Surgery before I went to London, and was much struck by the neatness with which they treated their fractures. Not but that it was much too nice to be applicable generally. So I set about reducing the methods of Desault and Boyer to the level of vulgar utility—for I have never used, if I could help it, any apparatus in a Hospital which could not be had and used anywhere else. I took a well-padded splint, which reached from the foot to half way between the tro-

chanter and the crest of the ilium—not higher than the crest, for that is a mistake, any authority to the contrary notwithstanding; this I buckled round the pelvis with a broad tape quilted with a narrow pad, or cat's-tail. The lower end was carefully bandaged to the foot. Another well-padded splint reached from the pelvis to the calf of the leg. Sometimes, if the limb was large, I put on a third narrow splint above; if the bone was broken in its upper third, I laid the limb on an inclined plane, as in a case of fractured patella. All this was at that time regarded as a novelty, and encountered some opposition and more criticism. But another unheard of appliance nearly raised a mutiny amongst the sisters. Guarding the ankle with a thick pad, I attached a bag with several pounds of sand. The cord, by which the bag was suspended, passed over a sheave placed in a stanchion which stood in front of the bed. Nothing can succeed better than this mode, which I have used ever since.

Of late I have seen sandbags, and plaster of Paris and dextrine bandages used instead of splints. My own course is (supposing the limb bruised or swollen) to put it between sandbags for a few days. When the violence of injury subsides I use splints, and when union is effected I frequently resort to dextrine or plaster of Paris, and thus enable the patient to leave his bed some days sooner than he otherwise would. But there is nothing new under the sun, for I remember when I was a boy, that a neighbour lent me "Eaton's View of the Turkish Empire" to read during the holidays. If I am not much mistaken, that author states that the Turks set their broken limbs with plaster of Paris—cutting away parts, in cases of compound fracture, to enable them to dress the wounds. I attach great importance to a generous diet after the first inflammatory symptoms have subsided.

Fractures of the ribs are, I should suppose, treated much the same all the world over. I should say nothing on the subject were it not for emphysema, of which I saw so many cases when I was a youth that I did not regard them as rare. Oddly enough I have not seen an emphysema of the whole body for many years. I recollect cases of such great distension as to require that the skin should be punctured, so as to give a free exit to the air which was accumulating

in the chest and creating dangerous distress of breathing. I will tell you a case which throws light on this difficulty, though, as it happened, there was no broken rib. In 1819 there lived at Pimlico a butcher, a fine handsome young fellow. His wife ran away with another man; but, I suppose, after trial given, she preferred the butcher, for she came back to town, and sent him word that she was at some inn near Smithfield, where she would be glad to see him, if he would come and fetch her home. I dare say that was her view of the case. She was a little plain woman, fond of her husband, but incorrigibly sexual. The butcher evidently regarded the affair in another light, for he took his best knife to the interview, and, throwing her down, stabbed her in all directions. But men do their work very indifferently when they are angry, for out of twenty stabs not one was mortal. One had, however, penetrated the right lung, and when she was brought to St. Bartholomew's pale and almost pulseless from loss of blood, the air was bubbling out through the wound with every expiration. My colleague chose to dress it neatly with adhesive plaster, and all that. I remonstrated, reminding him of cut throats, and the danger of sewing them up tidily. He would have his way. In an hour we were called—the patient was supposed to be dying. He took off some swathes of bandage, and the dressings were blown in his face, explosively. She breathed with more freedom, and was soon out of distress. She had a narrow escape after that, for her husband was tried and condemned to death. She was terribly shocked—he was such a dear man, and she was so unselfish as not to recognise her share in his trouble. He was pardoned, which, as it was right, might have been by mistake, and I understood he took his wife home again—but I hope with a due sense of the precariousness of her fidelity.

Not long since an Irish pedlar came to the Eye Infirmary at Exeter. He complained of a black eye that was white. It was certainly an odd eye, neither erysipelatous, nor ecchymosed, but so swollen as to be closed. It looked oedematous, but was too tight for that, and it did not pit on pressure, neither did it crepitate. I touched it with a cataract needle inside the tarsus, and the whole subsided with a puff. I suspected now how matters stood, and found the nasal bones broken. As I could not tell how far

the fracture might have extended through the ethmoid, I took him into the Hospital. He did well, without a threatening symptom, and I see him distributing blarney and brummagem to the weaker sex, as heretofore. These nasal emphysemas are described in books, but this is the only case I ever saw.

I once was present at the death of a patient from fracture of the atlas. The man had fallen from a pile of balks at a wharf near Blackfriars Bridge. His fellow workmen put him on a shutter, and brought him to St. Bartholomew's. He laughed at this, and told me he could have walked up well enough, but they would put him on a shutter, and so he rode up. The barber was shaving the back of his head, where there was a common scalp wound, when he turned the head smartly to get at the other side. In one instant, in the very twinkling of an eye, the man was dead ; and the blood subsided from the face of the corpse before us like the lifting of the fog, like the shadow of that drifting cloud.* We were all shocked as you may suppose, and went home sad and puzzled—for that was before Sir Charles Bell had read his celebrated Papers before the Royal Society, and the properties of the medulla oblongata were not known then as they were a few years afterwards. The next day we found that a sharp fragment of the vertebra had cut the spinal cord in two. Since I have been Surgeon of the Hospital at Exeter, a similar death has occurred. A patient came in for some affection of the throat. Dr. Miller desired me to look at it, when I found a large tumour, evidently containing fluid, in front of the cervical vertebræ. I opened it, and discharged a large quantity of scrofulous matter. The man was much relieved, but about a fortnight after, as he was drinking—tossing off his ale with a jerk—he died instantly, without a struggle. The nurse, who was of long experience, said she had never seen anything like it. We could not examine the body, but there can be no doubt that some one of the upper vertebræ, which I knew to be carious, had given way, and crushed the spinal cord.

Of fractures of the cervical vertebræ, below the third,

* The room in which this address was delivered looks out on the delicious scenery of Torbay, which was, at the moment, perfectly charming from its atmospheric effects of sunshine, cloud, and breeze.

we have a great number at the Hospital. I have besides seen many in the neighbourhood. They usually happen in harvest-time. Our peasantry are fond of a vile austere cider which is as strong as it is sour. When half-drunk, and tired with their hot day's labour, they slip off the loaded cart, or rick, or mow, as the case may be, and break some of the lower cervical vertebræ. There is something appalling in the living, intelligent head attached to the insensible body. They usually die in two or three days—but I have seen them die of bed sores after many months. I had a man from Sidbury, who, several months after the accident, was brought a distance of sixteen miles. Of course I did not sanction his being brought—I knew nothing about it. After several months he was taken home again by his friends, without my approval. He lived eight months altogether. Another case was under the care of Mr. Edye. A young woman was romping with some others on the flat roof of what is said to be the highest house in Exeter—I believe it may be sixty feet high, perhaps more. She ran towards a rail which surrounded it; she ran backwards and threw herself against it; the rail was rotten and broke. Nothing could stay her fall, and she knew it—but she sprang for her life. She sprang with such power that she cleared the adjoining lane, and right down she came forty feet perpendicular upon the roof of the opposite cottage. She was not much hurt then, for she was seen to struggle hard to keep herself there, but the roof was steep; it was slated, and slippery from drought, so, before assistance came, she slipped over the eaves another eighteen feet. She was taken up and brought to our Hospital with the fourth or fifth cervical vertebra crushed, and a broken thigh. She lived nine months, and I the rather mention this case because it confirms what is commonly asserted of fractured bones in palsied limbs. No particular pains was taken with the thigh—it was simply propped by pillows. It not only united firmly, but was as straight and as long as its fellow.

You may suppose what a number of fractured skulls I have seen. There may be extensive fracture and depression, and yet the patient may recover without any formidable symptom. I was sent for to a little child of six

years old in Saint Bartholomew's whose head had just been split open by a brick thrown at her. The frontal bone was fractured from the nose right up to the sagittal suture, and the left side was so depressed that you could pass the tip of your finger between the two halves—for there was a wound co-extensive with the fracture. So far from being stunned, or suffering from compression, she shrieked so shrilly when I came into the Ward that I think I hear her now. She thought I was going to cut her head off—that was her notion of Hospital Surgery. She went out well (saving a twist of the forehead), never having had a bad symptom. Not long after, a terrible accident occurred. There had been a fire in Lombard Street, at the Mansion House end. Two high houses were gutted; the street was blocked up, and full of people, looking at the ruins, when the horses of a heavy-laden wagon took fright and came at a rattling pace down Cornhill. The ground was so shaken by the wagon, as it came thundering over the stones, that the two upper stories of the two houses, which were of brick, fell right out, with what remained of the roof, into the middle of the crowd. I was told that sixty or seventy people were dreadfully hurt. Most of them were taken over the bridge to Guy's or St. Thomas'; but one of our pupils, a young Mr. Trollope, with a great deal of good sense and good feeling, and it may have been with an eye to business, ran over to the Bank, and, bringing back a number of Hackney coaches—cabs, then, were not—freighted five or six with these poor creatures, and taking his seat on the foremost carriage brought them to Saint Bartholomew's. Six of these cases had fractured skulls. You may conceive the crowd that followed Trollope's convoy. They filled the wards, and I had some difficulty in getting the beadles to clear them. One little pale urchin of a cockney, who had run after the coaches, refused to go. He said he was hurt as well as the others, and had as much right there. So he was told to sit by the fire until the rest had been attended to. He had a severe fracture of the left parietal. Its convexity, for at least the size of a crown-piece, was dented in, a third of an inch in the centre. He never had a bad symptom, and went out apparently well. One seldom hears of such people again in town, so I cannot tell how these

children went on in after-life. They might have been great sufferers.

In the winter of 1816, the Teignmouth mail-cart was robbed. The driver was knocked off his seat, he was stunned, and, as he recovered, was so confused, that he was some time in reaching a cottage near. The poor people took him in, and afterwards walked in with him to our Hospital—about three miles. He had quite recovered himself when he arrived. He had just such a fracture as the boy at St. Bartholomew's. He had no symptoms of pressure, and no attempt was made to raise the bone. Some years after my return to Exeter I found him in the Workhouse. He was not crazed or epileptic, but dull and apathetic. He had been an active, useful man, but the spring was taken out of him, and he was quite content to remain an useless pauper.

I do not know what ought to be done as a rule in these cases. Few who have read Percival Pott volunteer to trephine when there are no symptoms of pressure, and yet, if there be pressure, I am convinced that very serious disorder may ensue long after. I suppose each case must be decided on its own merits. I will relate a case which was under the charge of Mr. Tucker, an excellent surgeon of Exeter. He was never connected with our Hospital—but his zeal and ability are such as would have done credit to any Institution. The patient, when a boy, had been thrown from a horse. His head was cut; the doctor dressed it, as was discovered by the doctor's books a dozen years after—"to dressing your son John's head, &c." More than two years after the accident he became epileptic. As he grew up he became so wilful and troublesome that he was sent to a Lunatic asylum. The asylum people thought he did not belong to them, and returned him on his father's hands. Soon after this, Mr. Tucker saw him. He asked if there had been any blow, but the broken head was quite forgotten. Passing his hand over the head he felt a depression in the parietal—the prominent organs of wit and ambition are always getting into mischief—Mr. Tucker pressed, and the man instantly fell down in a fit. He trephined this patient, and raised the depressed portion, connected with which was a piece of bone an inch long which lay against the longitudinal sinus and pointed downwards. It has been

called an exostosis, but I believe it to have been simply a broken fragment which became adherent. The man made a complete recovery after a ten years' illness.

Of compound fractures of the skull and fearful wounds of the brain itself, which yet admit of recovery, I have seen marked instances. When I was a pupil at Exeter a fine boy, a farmer's apprentice, came into the Hospital with a terrible fracture of the os frontis on the left side near the coronal suture. The skin was in shreds, and the bone in fragments, the dura mater torn, and the surface of the brain bruised to a pulp. Mr. Barnes in passing his finger over this exposed surface felt a fragment of bone. This was so deeply lodged in the brain as to be quite concealed; yet when drawn out it was found to be upwards of an inch long, and as broad as one's finger nail. He was a merry little fellow—told us that he had been kicked by Dragon, one of his master's horses, but took the kick in good part because he was plucking hairs from Dragon's tail. This was on his arrival, only a few hours after the accident. He was very carefully treated, and got well in a few weeks. This was two years before my going to town, so I conclude all went well with him for that time at least, or I should have heard of it. I will tell you of a worse case than this—and, besides, I knew its subject well, as long as she lived, which was five years from the time of the accident. A delicate, neatly-dressed child, about twelve years old, was standing at the window of a third-class carriage just as it whirled under Cowley Bridge. All I have heard of her previous history is this, that she was the orphan of a barrister, well-known in literary circles, and therefore we may conclude, a gentleman and a scholar struggling against poverty. Her mother, too, was dead; both parents had died of consumption. She was utterly destitute, until this accident raised her up a friend whose own charity, and whose power of directing the charity of others, rescued her. It is a sad, melancholy story; I will not pursue it, but confine myself to matters of professional interest. Just as the train was passing, some wretch—it was not his first outrage of the kind—hurled a large stone. It struck the poor girl on the forehead, and sent her back covered with blood among the other passengers. In two minutes she was at the Exeter station, and was then brought at once

to the Hospital. When I came in, she was already in the operating room, and as she lay under the blazing gas-lights, pale and bloody, I was struck with her placid, confiding expression. She was evidently in no pain, and quite understood the kind intentions of the many strangers who stood around her. It was clear that she had been kindly reared, and had no misgivings on that head. I saw Mr. James take four or five large fragments of bone out of the anterior lobe of her brain. I think I am right. (Mr. James: "Quite right.") Extreme care was taken in this case, but there really were no reverses. Her recovery was so complete that she was placed at school to be trained as a governess. I do not imagine that she was by nature a girl of great mental power, but for several years she showed no deficiency. After that, the hereditary taint began to tell upon her. Tuberculosis appeared in one organ, and in another. She became dull and apathetic, and it was plain that the brain was extensively diseased; and so she died.

Fracture of the base of the skull is a fearful accident. It has been regarded by some as inevitably fatal; but that I am convinced is not the case. I will revert to this question presently, though, probably, your own experience may render my doing so superfluous. I have observed in most cases—probably in all when the violence has not utterly disorganised the brain, and annihilated its functions—that profound stertorous breathing, and apparent insensibility have not prevented a degree of consciousness when roused. I first noticed this in a servant-girl who jumped from the first-floor of a house in Cock-lane or Cow-lane, Smithfield, which was on fire. As I entered the ward I met the old Treasurer, whose sympathies were all alive, for the whole street, where the fire was raging, belonged to the Hospital. I told him the girl would die. He was a haughty old man, though shrewd enough, and asked me peremptorily how I could form an opinion when the patient was at the other end of the ward. I said she was breathing, as if she was in the worst state of apoplexy. The blood was then trickling from her ears. Just at that moment the girl's sister came in, and called her by name. To my great astonishment she answered "yes," as if she had woken from her sleep, but went off again directly. She died two days after. I thought over this case as a

physiological student would, and never forgot it. It must have been about 1836 when a poor fellow came down from Sadler's Wells to play clown at our theatre. The entrance to the pit had a descent of eleven steps, but the shadow of the ceiling concealed the three last. No stranger would have guessed that there were more than eight. He leaped down, alighted on his feet, stood for an instant, and then sank on the ground. I saw him within two minutes, for I lived close by. He was breathing apoplectically, blood was trickling from both ears, and in the right ear there was cerebral matter which I picked out. He lived about forty hours, and during the first four and twenty, if you called him by name he would pause in his respiration, as though listening, and sometimes he murmured out "yes," or "well," as a drowsy man might. Here was a man in the height of his bodily powers, trained to marvellous feats of activity, who crushed in the bottom of his skull by a miscalculation of twenty inches. Some years since, the late Lord Egremont's butler was going home through Killerton park, when he missed his way in the dark and fell over the wall. Fortunately there are houses across the road, and the people hearing him groan went out and took him up. He was quite insensible. The next morning I was sent for to meet two surgeons of the neighbourhood. He was breathing with a profound stertor, and he had been bleeding all the night from both ears. I lifted up an eyelid and saw the pupil contracted as in sleep. I said, "If we rouse him, I think he may know me." I dare say my medical friends thought this quite wild, so I gave his shoulder a push, and said, "Mr. Woods." He opened his eyes in great surprise, and said, "Bless me, Sir, how did you come here?" for I suppose he thought he was in bed at home. He began to snore again immediately. He recovered so far in two or three weeks as to make his will and arrange all his affairs. About six weeks after the accident he died, as I was informed—for I did not see him again—of an immense abscess of the liver.

This affection of the liver by injuries of the head is well-known. I will relate a case which proves that, and the recovery from fractured base of the skull besides. A boy, nine or ten years old, was brought into our Hospital from a farm some miles off. His head had been caught in a

threshing machine. There was a severe laceration of the skin and muscles at the back of the head and neck. The occipital bone was extensively fractured. I took a triangular piece by the apex, and, rocking it, distinctly traced the fracture into the foramen magnum, and the interval next the petrous portion of the temporal bone. The boy remained for some time in great danger, and had a very slow and painful recovery. He went home apparently well, but a twelve-month after I met him in Exeter with his mother. She said he suffered dreadfully from headaches. His complexion was of the most intense yellow, and, as he was pitted with smallpox, his face looked more like a Seville orange than anything you ever saw. Soon after this I went to town, whence I did not return for nearly three years. Thus I lost sight of many curious cases, but I concluded that this poor boy died. We shall see how it turned out.

About ten years ago, I had in the Hospital a case of fractured base of the skull, at least I had in my own mind little or no doubt about it. The man, who had been in imminent danger, was, after a long illness, so far recovered, that I was about sending him home—for he lived in Exeter. I was pointing him out as a case of recovery to a group of pupils who were standing round his bed—for that is the way we give clinical lectures in Exeter—the patient before the young men, and we stand by the bed, or, if the weather be cold, by the ward fire, or, if it be hot, on the stairhead, with the patient at hand—but the pupils do not sit on a bench, like the Miss Kenwiggs' with their tails all one way. I was, as we are wont to do, describing various cases by way of illustration, and amongst them, that of the farm-boy, with the ochre-tinted complexion. The patient at the next bed stood listening very attentively. I happened to catch his eye, and observing a very peculiar expression, recognised him as the boy I had taken care of more than thirty years before. He was much pleased at my remembering him. He said his head-aches had lasted a long time—he did not know how long—but that at last they went away, and that he had grown up a healthy man—which indeed, his appearance indicated.

After having spoken of these terrible injuries of great nervous centres, you will not think it an unnatural tran-

sition if I proceed to traumatic tetanus. This most formidable affection is very common in this part of England. I must have seen seventy or eighty cases, probably more. We never hardly pass through a year without one at the Hospital. I have known four in six months. Besides, I see many cases in other parts of Devon, whereas, I did not see one case for three years together at St. Bartholomew's. They ensue upon all sorts of accidents, not more frequently from severe ones than from others. They come on sometimes after operations—amputations for instance. I once lost a case of lithotomy from tetanus. The attack usually begins about the ninth day. Sometimes the injuries are very slight, but the tetanus is not at all the less fatal. When I was a pupil at our Hospital, an old woman came with a small blister, not larger than a good-sized pea, on her forehead. She had carried home her Sunday's dinner from the bakehouse on her head. We had some fun with the old soul about working on the Sabbath, which she retorted, if I recollect right, to our discomfiture. On the ninth day after the scald she came to say it was well—and so it was. "But," she added, "I am stiff at the back of my head—I must have sat by the open window." I had then been a dressing-pupil three or four years, and was quite on the alert as regarded tetanus—so I told her to sit down in the ward until I had been round. In an hour and a half I returned, when the increasing spasm told its own story. She died about eight and forty hours after.

Not long after this, a hale middle-aged man was brought in with severe tetanus. We enquired for an external wound, and looked for one, but in vain. Among many other things, a cold shower-bath was tried. Oh! for mercy's sake never try a cold shower-bath. He burst away with a yell such as I have never heard but then. He was stunned by the shock and died in two hours. Then there was the mystery of no wound unexplained. The nurse spoke to his wife about it, after his death. She said that, nearly a fortnight before, he had walked down to Dawlish and back, that she found some blood on one of his stockings, and that he told her a nail had stood up through the sole of his shoe and pricked his foot. We examined the corpse and found the mark of the puncture plain enough.

When I became Surgeon of the Hospital, of all the cases

I had seen not one was saved. There were traditions of three or four recoveries ; but, with all respect for my predecessors, I considered them somewhat apocryphal. There was a whimsicality in the modes of treatment, none of which were alike, which was suspicious. I had a case, in consequence of a laceration or crush of the thumb, and I asked Mr. Barnes if he thought I was justified in trying large doses of quinine. He approved, and recommended besides that the spine should be rubbed with belladonna and blue ointment. Five grains of disulphate of quinine were given every hour, and, as the violence of the spasm declined, less frequently. Many days went by before he was out of danger. The spasmodic habit reminded me of what I had seen after (Asiatic) cholera. Ten months after his discharge from the Hospital, I saw him driving a cart up Fore-street-hill, and his gesticulations were like those of chorea. He recovered perfectly, and lived to go through two surgical operations, one for strangulated hernia, and one for popliteal aneurism. Nothing remarkable occurred after these operations. My next case was a young gentleman, rather delicate than otherwise, who lived about twenty miles from Exeter. I met Dr. Brock of Wellington, who, naturally enough, was very desponding about his case. I suggested the same treatment—the young man recovered. I heard of him lately ; he is residing in London, a healthy, middle-aged man.

I was at Teignmouth one evening, and having to wait an hour for the train, strolled down on the Den. There I met Mr. Bartlett, whom I see sitting below me. He asked me to see a servant close by, about whom he was very anxious. Well he might be, I did not think she would live through the night. She was quite arched with opisthotonos. I recommended the quinine and belladonna, and she recovered. I began now to think the difficulty was mastered, and strongly recommended the treatment to my colleagues. It was tried in several cases, always with great relief, but not with ultimate success. In one or two I thought there was some little hesitation—waiting for evacuation of the bowels, and so on—but I have since failed myself in six or seven cases, some in the Hospital, some in the country. In every one there has been great mitigation of the spasms, and great alleviation of pain and

distress, and I am sure life has been prolonged, but I am equally sure that the treatment is far from infallible.

If we have more than our share of tetanus, we are almost exempt from a more dreadful disease, which without any good reason is associated with it in our minds,—hydrophobia. There was no record, or tradition, of any such case having been known, until one occurred in the practice of a Mr. Stabback, a surgeon of Exeter. He showed the case to the late Dr. Blackall. The child died, and the body, as I have heard, presented unequivocal marks of hydrophobia. It had been bitten about six weeks before by a remarkably large and beautiful Newfoundland dog. Whence the dog came, or what became of him, strange to say, was never found out.

Of erysipelas we were formerly much afraid. We had no doubt that at certain times it spread from one surgical patient to another. The Devon and Exeter Hospital is admirably situated on the outskirts of the city, with the country before it and with extensive pleasure gardens between it and the town; the ground falling rapidly from it—but the wards were not large, and they were crowded. The consequence was that erysipelas every few years recurred so seriously as to create much alarm and annoyance. Since the spacious new wards have been opened, and the old ones thinned out and ventilated, we have indeed had erysipelas from time to time, but no longer in a contagious form. Besides we have now ten well-ventilated separation wards, to which offensive, or infectious patients may at once be transferred.

You will be surprised when I tell you that two or three and forty years since the infectious character of erysipelas was totally disbelieved at St. Bartholomew's. They said they had heard something of the kind in this hospital, and in that, they only knew they had not seen it—all which meant that they did not believe a word of it. And yet three cases that occurred while I was there "might much have changed their sceptic creed." I was going into the men's wing late one night, when by the dingy oil-lamp I saw a little group, quite silent, and peeping in at the door of the back ward. I went up to enquire who they were, and what they were about, when I found the sister, and the nurse, and one of the beadles, and two others. The sister

told me in a low voice that one of the patients had jumped out of bed, knocked down another with the poker, killed him as she thought, and was then walking up and down the ward threatening to kill every one else. "There, Sir," she said, "you can see him as he comes down," which one could, for, as she made her escape, she had put down the candle close by the door, so that the man was shown by the light, while the door was in shade. He was in his shirt and drawers, and anything more fiendish than his look of triumph I had never seen. "He will turn directly, Sir," said the sister. "When he turns" I answered "open the door gently." I stepped back, and slipped off my shoes, and the door opened. I stretched in with long noiseless strides—one, two, three, and I caught him. I caught him by the poker-arm and chest. It was so dark I could not see his expression—I just caught the glare of his eye. He made a desperate effort to extricate himself. I had no hold—there was not a moment to be lost. I strained him back; I struck his heels into the air; we toppled over together, and, as he came down upon me, I slipped my hands under his arms, and clasped them behind his head; as I touched the floor I crossed my legs round him. He was secured, and I told the sister and the others to come in. This takes some time in telling, but not five seconds had passed since I entered the ward. And now I will state what appeared to me very extraordinary, and which may interest gentlemen who regard these subjects from a psychological point of view. This savage maniac, or whatever he may be termed, no sooner found himself mastered than he grew calm and cunning, as well as mischievous. "You hurt me, Sir, with your hands. I am sure you don't mean it, if you will please to take them away." I said "Give the poker to the sister, and I will let you get up;" and so I would, for by that time we both understood each other. He made another desperate effort to shake me off, but I clutched him more heavily than ever, and they wrung the poker out of his hands. Just then a straight waistcoat was brought in; it was put on, and he walked as quietly to his bed as if nothing had happened. I went into the ward very early the next morning. The sister was in bed. "I have taken off the straight waistcoat, Sir" she said "he is quiet enough now,

he will never do anybody more any harm." There indeed he was, placid and very low, though he had taken food during the night. Nothing would get up his powers, and in four and twenty hours from the first attack he died. This man had come in for a slight wound of the scalp. Erysipelas took place, but it was quite a trifle. It fixed our attention however on the head, when the body was examined. Dr. Clutterbuck's doctrines were then in the ascendant, and many saw great indications of inflammation about the *pia mater*. I suppose they saw what they expected. I did not see anything unusual.

About a week after, I was crossing the square, when the nurse of the same ward ran up to me. She was in a great fright, and said something very incoherently of a patient having jumped out of window, which seemed in itself no such great matter, as the ward was on the ground floor. He was in no way under my charge, but, of course, I went in directly, when the sister told me that one of her patients, who was then sitting in his shirt, looking very pale and exhausted, had started suddenly from his bed and jumped through the window—pointing to the window sash. It appears that he ran headlong at the window, and went through one of the panes. You must, some of you, recollect the little square panes. I have looked at those heavy sashes again and again, and never could understand how his body passed through. He must have come as straight and lengthy as a Whitworth shot; There were people outside in Duke's Court, they saw him come through; he took the iron railing, as a greyhound would a pale-gate. Then he rolled over on the ground, and they laid hold upon him, and brought him back. I was fully engaged by my own duties, and did not watch this case, but he died in less than thirty hours. I understood that he had erysipelas slightly. His body was examined, and it was found that Peyer's glands were ulcerated. A few days after, just such another case happened in the same ward, but the sister and the patients were, this time, on their guard, and prevented any great violence. This man sank within thirty hours. He had some slight erysipelas, and Peyer's glands were found ulcerated. This patient was under my care. I said to the sister, "Why he lay in the same bed as that man did who died so

strangely a fortnight ago." "Yes, sir," she said, "and so did the other." I went to the Treasurer directly, stating the facts, and my opinion. He desired me to do whatever I thought necessary. I suggested that the bedding and bedstead should be destroyed. We had no more such cases.

I have described these cases, which have never before been made known, at some length, without propounding any theory. I am simply a practitioner, and leave it to those who consider that it is their vocation to theorize and enlighten their brethren to draw such inference as they see fit. I merely suggest that when erysipelas assumes an infectious type, it may not be wholly beside the purpose if they enquire in what important symptoms it agrees with typhus fever.

I have often seen an uncomfortable, nay, a threatening character of ulceration appear, but I never saw true Hospital gangrene—such as deserves the name—but once. It came about in this way. Sometime in the summer of 1815, all the walls of Exeter, and all the walls of all the towns in the West, were placarded with an announcement of Oratorios and other sacred music. After the manner of the time the Cathedral was deemed the proper theatre for sacred music. There was to be Madame Catalani, and I know not who. Every one was seized with a devotional fervour to hear sacred music. All who could afford it bought tickets, besides others. Well, the day arrived, the county emptied itself into the town, the city was full, everybody met everybody else, and it was so delightful, and the Close was thronged with carriages, and one gay equipage after another swept up to the old grey porch—talk of a Queen's night at the Haymarket. And there were the poor—the working people. They came to take their humble share in this hallowed "festival" I think it was called—but it was not Christmas or Easter-time. Now just at the north-west angle of the Cathedral there was a small building jutting out—it is gone now—on which any active man could climb. Perhaps eight or ten might be already on its flat roof, when I saw a young man in his working dress stand up on the iron rail in front. He laid his hand on the battlement, and sprang—the masonry gave way and he fell back on the railing with the stone-

work on his lap. There he hung suspended, spiked—spiked through both thighs. He was lifted off with as much care as you could expect in the consternation of the moment. They took him to the Hospital, and I went with them, partly because I thought he might bleed dangerously by the way, and I might save his life, and partly because I was dresser for the week, and would have to look after him. He did well enough for two days, but on the third morning when I went up early to see him, he was looking with that neutral-tinted complexion, which means so much, though you can hardly describe it. One of his thighs seemed to have a very faint greenish shade. I thought it might be from the elms opposite the window, but it was much the same when I moved round. It struck me too that there was some crepitation in the course of the femoral artery, but it was so obscure I was not sure. I went for my master: students had masters in those days, they are their own masters now—I would I could wish them joy at the change. He came down in less than an hour, when there could be no doubt. Vigorous means of support were used, but at twelve that night our patient was sinking fast. I went down again at seven in the morning. As I entered the Hospital, I was met by a fellow pupil (he was the most gentlemanlike and diligent student of medicine I ever knew—he left us afterwards for the Church, which was his first choice, and of which I hear he is now one of the most popular, because one of the most earnest and judicious archdeacons—but he would have adorned any profession, so it may be as well that the best and holiest has him) says he, “your man died at three this morning, and if you will go out, you will see the most dreadful sight you ever saw.” I was going, when he called after me “take care how you go in, for the stench is frightful.” As I had been a dresser at that time for three years, and had worked hard in the dissecting room, I almost laughed at the notion that I should care for any bad smell. So I went to the room, which was used as a dead-house, but which was a large room intended for the Hospital laundry, with a roof open to the rafters, and windows with scarcely any glass in the casements. As I opened the door I thought the foul gust would have knocked me down. There lay the body in a shell—it had been put down and

deserted in haste. It was naked, for in trying to throw a sheet upon it they had missed. The sheet fell over on the further side, but no one would go back. The corpse was livid, and swollen to bursting. I can give you no idea of anything so loathsome. It was more like a dead dog putrefying in a pond, than anything else I can liken it to. Mind, this was only four hours after his death. The gases were bubbling audibly out of the mouth and nose, and out of the wounds in the thighs, through a horrible sanies. The skin was giving way in other parts. How they got that poor creature to his grave I know not.

Now the results of this awful case were, that the two nurses who laid out the body were attacked, almost immediately, with putrid fever. One died in a week, and the other, though she lived through it, never did a day's work again. They were good women and good nurses, and were a great loss to the Hospital. Hospital gangrene immediately broke out in the ward where he had lain, and in the next. Every wound sloughed, and several patients died. One case cheered us under this dreadful visitation. There was in one of the two wards a lad with lupus; we called it *noli-me-tangere* in those primitive times. It ate away his nose and cheeks in open defiance of us. On this occasion his ulcers sloughed like the rest, a new surface was obtained, and he got quite well.

As regards aneurism I have seen the treatment by pressure on the artery in three instances, and, without saying more about it, it failed, painfully, in each. It might be that the constitutions of the patients were bad, or it might have been any other cause which any one might be pleased to assign, but I pledge myself to this, that no want of care or skill on the part of the Surgeons, who had charge of these cases, led to these unfortunate results. I was myself urged strongly, very strongly, to try it, but I saved my advisers all further trouble by telling them plainly that I did not intend to act upon their advice. The patient came from this neighbourhood (Torquay). He was thirty-nine years of age, a gardener, and therefore of active habits. He had a popliteal aneurism which had slowly extended towards the perforation of the triceps. There was some notion, and I think not unfounded, that consolidation was going on. I would have given anything if it had been so, for

you will own it was no tempting case for an operator. He had a weak, palpitating heart. He was ruddy, but there was a dash of purple mixed with it. His feet—both of them—were cold and blue like an old man's. I was sure if I put pressure on that man's femoral vein, (and who would separate it for me from its artery) that his leg would die. Mr. James agreed with me and proposed, in addition to previous general treatment, a lotion of decoction of digitalis with acetate of lead. It calmed down the pulsations, certainly, and I thought the solidification was proceeding, when the increasing feebleness of his heart forced me to desist. Shortly after, the ankle began to swell, and a large tortuous vein crossing the knee showed that the popliteal vein was becoming obstructed. I now made up my mind to tie the femoral artery, holding it safer to obstruct one vessel rather than both: not without the foreboding that if I were driven to amputation, or if the man died, I must, as compression had been proposed, put up with the knowing shrug which even the kindest friend bestows on your bad luck. However, it proved otherwise. The warmth of the leg and foot increased directly; I cannot tell why. Next day the vein disappeared, as the tumour diminished. The oedema was gone in a day or two. He is now quite well—that is, as far as his popliteal aneurism is concerned.

I shall not separate arteries tied for wounds, from those tied for aneurism. Mr. James has tied the abdominal aorta, as he himself has told me under very urgent circumstances, and rather with the hope of prolonging life than of saving it. His patient died, as did Sir Astley Cooper's; and I suppose, after these failures, it will not be repeated. Mr. Barnes tied the subclavian artery, without any difficulty. I have seen a nerve of the brachial plexus tied instead—let no one be over confident—by a surgeon of distinguished reputation. I saw Mr. Barnes tie the carotid, it was his second operation at our Hospital, and more exquisitely neat than any other operation I have chanced to see. There was the artery, and there was the jugular vein, dilating and contracting as the blood passed down like beads, and the par vagum between them. Somehow the blood never smudged the parts in his operations, or obscured their anatomy. I saw it thoroughly, for it was at night, and I held the candle. I saw Mr.

James tie the carotid not so very long since, and assisted him. I saw, when I was his house-surgeon, Mr. Vincent tie the carotid for aneurism, in 1818. The patient went on favourably, the ligature had separated, and there was an intention of making him an out patient, when one morning I was surprised at finding the aneurism as large as ever. I sent word to Mr. Vincent, instantly. He came, but could not make out the cause, and, as the man seemed well enough, he did not appear to take alarm. I went up early in the afternoon to see the poor fellow before dark, for it was winter. Going up to his bed, I saw him lying on it, dying, just giving the two or three convulsive jerks one sees in a drowning animal. I called out to the sister, for no one had taken any notice of him, to know how long he had been in that state. "State, sir," she said, "I do not know that anything ails the man, he was standing by the fire this minute." "Then," I said, "sister, the poor fellow is dead enough now, you may rely on it;" and so he was. We examined his body next day. The meningeal arteries were filled with bubbles of air. I was told air was found in other vessels. I took out the aneurismal sac, and the artery, and all the adjacent parts, and sent them into the museum, where they were carefully examined. It turned out that a small quantity of blood, which had remained in the sac, had putrefied. The gas generated distended the sac, as we had observed in the morning, and when it could hold no more, the plug of lymph in the distal portion of the artery above the sac was forced up, and the air rushed into the arteries of the head. This case is very differently related in the Tenth Volume of the *Medico Chirurgical Transactions*. Mr. Vincent, though one of the best surgeons living, was not addicted to medical literature. You could hardly believe how much he knew, and how simple hearted he was. I have no doubt he obtained his information from some one who knew little, and cared less, about the case. What I have told you, I know of my own knowledge.

I have never seen the slightest effect produced on the brain by tying a common carotid.

The external iliac has been often tied at our hospital, and with a large proportion of success. The first time I performed this operation, which was for a very large

aneurism of the femoral artery, I met with a remarkable deviation from ordinary structure which was perplexing at the moment. After I had passed the ligature, which was rendered difficult partly by the singular firmness of the tissues, none of which yielded except to the knife, and still more by the frantic terror and resistance of the patient ; after passing the ligature and satisfying my colleagues that the artery was included, I tied it. Instantly arterial blood welled up and filled the wound. A finger passed down on the vessel stopped the bleeding which recurred when it was removed. That the hemorrhage followed the tightening of the ligature was evident, but how or why was a mystery. However I instantly passed another ligature an inch higher up, tied it, and the bleeding ceased. The man died a week after, which was no more than we expected, considering his excitement and his violence at the operation ; had he taken chloroform, which was then not known, it might have ended better. He died of peritonitis which came on insidiously and was never strongly marked. I took out all the parts from the aneurism upwards, and dissected them with great care. Just an inch above the epigastric there sprang from the external iliac a small artery, which passed up in the same direction, and seemed supplementary to the epigastric. The ligature was tight enough to secure the external iliac, but it lacerated the small irregular branch, which was included, close to its origin. I mention this, though it may never occur again, for irregularities of the external iliac are almost unknown.

The tying the popliteal artery seems nearly forgotten. I have performed this operation twice, and Mr. James once, for wounds of that artery. Our object was to secure the vessel as near the wound as we could, which, I believe, is good as a rule. It is more difficult to tie the popliteal than the femoral. A very free division of the skin is required.

Mr. James wished a few years since to press on the femoral artery close under Poupart's ligament. He had a cast of the groin made in plaster of Paris. It was hollowed out and filled with mercury. It answered exceedingly well. His son, who has succeeded him at our Hospital, amputated the arm at the shoulder some short time since. Dangerous

hemorrhage took place a few days after. He laid a chamois-leather bag filled with mercury just below the clavicle. It answered well in stopping the bleeding, which was all that could be done; malignant disease had re-appeared in the stump, besides which the exhaustion almost forbade such an operation as tying the artery above or below the clavicle.

I see I have a note here of several cases, which, now that I am speaking of the accidents and diseases of arteries, you may allow me to introduce, although, as nothing could be done for them, they are not quite in place in a mere exposition of practical surgery. You have most of you, I doubt not, seen those curious cases in hysterical girls where the celiac artery simulates an aneurism. I once saw this in an old lady, but she was so excitable as to be almost, if not quite mad. The case however of which I speak was a true aneurism of the abdominal aorta in a young man. You could, when the abdominal muscles were relaxed, feel it pulsating between your fingers. It was the size and shape of a large pear. One morning he fainted, and in a minute was dead. When the abdomen was opened next day there was no extravasation of blood, as we had expected. The aneurism had bled into the ileum, which it filled for some feet. This had very nearly been overlooked.

I had a great many years ago an elderly man with aneurism of the heart. It consumed the sternum, and the ribs, and their cartilages, and at last thinned the skin over a large space, just as the skin is thinned over a carbuncle. I was almost sure it would burst externally, though I could not tell through which of half a dozen purpled patches. The man himself, and his family, hourly expected his instant death. One day his daughter ran up to my house, asking me to come directly, as it had burst. I had just before received a pressing message to go in another direction, so I told her it was useless, as he must be dead long ere that. She only answered in the most subdued tone, "He was not dead, sir, when I came away." I could not stand that appeal, so down I went. There, to my astonishment, did I see him sitting up in bed, pale as death itself, with a wash-hand-basin nearly full of blood before him. A clot of blood, or of lymph, had got into the opening and choked it. "There," he said, "sir, look how it

patteth," (beats or pulsates) "when that jumps out, I shall be dead." It was another hour before it did jump out, and then—he was dead.

In Little Britain there used to be a set of small shopkeepers, who always made the acquaintance of the house-surgeons of St. Bartholomew's. They told us, as we passed, if it rained, or if it shone, and enquired for the last dreadful accident, and if anything ailed the women, or their children, in, as sure as fate, came the chatty matrons, just to ask the doctor what he thought they had better do for it. To one of these shops which was licensed to sell tea, coffee, tobacco, and snuff, there resorted a tall Italian to buy the two latter articles. There were little flirtations between him and the pretty daughter who sometimes served behind the counter. The Italian was explicit, declared his love, and offered marriage. The girl was courteous, but candid, she always liked to see him, he was such a pleasant gentleman, but she would not marry him, for which she gave good and sufficient reasons. All this was repeated once and again. He then told her that, if she would not marry him, he would kill himself. She laughed, as an English girl would, and said that the Signor was too sensible a man to kill himself for her. He instantly drew a knife, stabbed himself in the chest, and fell, deluged with blood. They brought him into the Hospital cold, pale, oppressed, and pulseless, but stern and collected to the last. He lived four hours. We next day found the pericardium crammed full of coagula, and a wound which penetrated into the right ventricle. It appeared to me that he died rather from the coagulated blood preventing the heart's action, than from the hemorrhage.

Here is another memorandum, a case in which a ruptured perineum was united. Well, you will say, there can be nothing so wonderful in that. True; but the treatment was somewhat novel, and I will submit the peculiarities to your consideration. The patient was a small, dark-complexioned woman, fifty-four years of age. During labour thirty years before, her perineum was ruptured into the anus. The internal sphincter was not destroyed. This, and a costive habit, enabled her to retain her motions generally. Her chief inconvenience arose from the prolapsus of an hypertrophied and ulcerated womb. It hung down

nearly to the knees, but could be returned into the vagina. No pessary or bandage would support it. Two attempts had been made many years before, in a provincial Hospital, to re-unite the perineum. These attempts had failed, and the paring of the edges had very much diminished what remained of the perineum on either side. This diagram (plate I, fig. 1,) will explain the condition of the genital parts. I had to consider well what I should do, for it was clear that a third must be a final failure. My object was to make a perineum which should serve as a platform to a pessary of some sort. I at first thought of the quill-suture, but the part was so skinny and unsubstantial that I feared the pressure, which would be absolutely necessary to keep the two sides in contact, might produce sloughing, or at all events prevent union. So I devised this suture which is shewn in the drawing (Pl. I, fig. 2), and which, if you please, I will call the "chain-shot suture." Having fastened a ligature round a split shot, such as is used for fishing, I passed a suture-needle through the pared edges, passing it into the skin, and bringing it out again half an inch from each edge. Then taking another split shot in a strong pair of necrosis forceps I ran it along the ligature, until the edges were forced into contact, when I pressed the forceps together and clinched the shot. I used five of these sutures and brought the two sides thoroughly together. You see by the drawing (Pl. I, fig. 2 & 3,) that, instead of the continuous pressure of the quill-suture, this, the chain-shot suture, allows the circulation up freely between the shots to each edge. This is seen clearly in the two plans, but the sections (Pl. I, fig. 4 & 5,) show another advantage. The quill-suture requires that a doubled ligature be carried from one quill to the other, and these two portions of the ligature, which are kept as wide apart as the diameter of the quill, interrupt to that extent the union of the parts, but in the chain-shot suture there is only one ligature, and the interference is inappreciable. The result was—I am not going to enter into an account step by step—the result was a union such as may be understood by a reference to the diagram, (Pl. I, fig. 6), I thought I had succeeded, and so I had, as I intended, but I must admit that I had all along been acting under a misapprehension. There was in the woman, who happened to be in

mourning, an indescribable something which made me think her a widow. I fancy the nurse was of the same opinion, for she said something or other which confirmed, if it did not create my blunder ; so I thought if I could but prevent the prolapsus, and leave the urethra to perform its functions, I need not be over anxious as to any possible restraint I might impose on a little withered widow of fifty four. Going into the ward accidentally, when visitors to the patients were there—which I never do if I can help it, because it disturbs them, and in that way annoys myself—I saw a fresh cheery-looking man sitting by my patient with a most suspicious familiarity. She introduced him to me as her husband, and seemed very proud of him ; and, to do him justice, very fond he seemed of his little sallow old woman. Here was a discovery : it sent me home pensive and peevish, for I had taken alarm, and thought my new perineum might prove obstructive. I went down that very afternoon, and examined it carefully. That it would offer some impediment was clear, though by no means so much as I had feared. I wished to improve it, but there was nothing to spare with such a ponderous uterus to support. I bethought me at once what I would do. You see by this diagram (Plate I. fig. 6) that the perineum posteriorly formed an arch, with the anus in the middle of the chord. I had tried to reduce the span of this arch by scraping its concave edge, and thus exciting it to contract, and it had contracted considerably, but it would not do so any more. The former operations had taken away the material I wanted. I thought if I could but carry the platform (for in that light I regarded her new perineum) bodily backwards, I should place it where it would give more direct support, and remove an impediment in front which would certainly be inconvenient. This I proposed to effect by taking two pieces of skin, one from each buttock, about three inches long and somewhat more than an inch wide, connecting the wounds with the spring of the arch of the perineum on either side, and trusting to the whole being dragged back, as the wounds healed, and the cicatrices contracted. I had already ascertained that the perineum would slide back, as it were, to the extent required. I communicated all this plainly to my patient ; she understood me at once, and entered heartily into the plan. She had

suffered so much that I offered to give her chloroform ; but she did not care for the pain if she could but get right, and she took too much interest in the affair to allow anything to be done without her knowing all about it. The skin was removed accordingly, (Plate I. fig. 6), and the cicatrices, as you see by this diagram (Plate I. fig. 7) answered their intention completely—the arch of the perineum was drawn back close to the anus, and the vagina was set free about five eighths of an inch additional. I kept her in the Hospital some months to allow the union to become quite firm. Still I know that there is nothing like original structure for resistance. I therefore invented a pessary, shown in this drawing, (Plate I. fig. 8), to support the womb, with the least possible pressure on the parts below. It is formed of metal, capped and footed with ivory. There is a button-like process below, by which it is fastened to a band of leather. This woman went home about twenty months since, apparently relieved from the misery which had weighed her down for thirty years. It may be satisfactory to know that I lately met with an old nurse who lives near her. She says that my patient is quite another woman, and that the village matrons pronounce my work sound and artistic ; I do not remember the precise terms used, but that was the meaning.

I proceed from union of a perineum to the union of harelip ; an inversion of the subject, but I claimed from the first to be immethodical. Very early operations are, I hear, favoured by authorities from whom I venture wholly to dissent, regarding myself as an authority equal to the books by which young men of promise write themselves into notoriety. The plea for the early operation is that the formative processes are intense in an inverse ratio to the age of the patient. This is exactly the mistake ; they dwell on formation, when reparation is in question. That surgeon can have had but small practice who does not know that you can hardly procure union by the first intention in an infant, however fast its growth. The saliva too is peculiarly irritating, as any nurse (on whose statement you may rely better than on a volume of speculative reasoning) can tell you. The very mother herself draws back her excoriated nipple, and at last finds that she must deprive her babe of its own, or grin and bear it.

If such early infancy be necessary to the operation for harelip, how is it that when we remove epithelial cancer from an aged, aye and a bearded smoker, we reduce his lip to precisely the same condition, and yet never entertain a doubt of its reunion ? I have never seen a failure when the child was three or four years of age ; but I have seen utter want of union, and I have known death itself ensue when performed on an infant of five or six weeks. I will give you some account of the worst case of harelip I have ever seen ; and I have never seen a more perfect cure. The patient was a female servant in a farm house. She was forty-two years of age. She came to our Hospital for a small ulcer on the leg. She thought nothing of her deformity ; and as for those she lived with, the good wife of the house knew its value, for her servant had no hope of another place, and she had her such a bargain. She had no palate, so that the poor creature's nose and mouth were one, within and without. The nose stood out over the common cavity like a pent-house. There was no upper lip, but the alæ sloped off to the corners of the mouth. But just beneath the tip of her prominent nose there dangled a lump the size of a walnut, just like the pudding from the woman's nose in the fairy tale. This mass was made up of bone, which you could nearly squeeze into the place where the palate ought to have been. It was a premaxillary detached, covered with gum, with two good incisors in it. In front coming off from the nose, was a heart-shaped piece of skin. These were the materials out of which I was to construct a decent looking woman. There was nothing remarkable in the operation. First I pared off some of the gum on each side of the centre piece which hung from the nose ; then I pared the gum of the alveolar arches on each side of the palate, until I found that the central piece would just fit in. Then I pared the heart-shaped skin in front, and raised its edges a little, and then I pared the skin from the alæ of the nose to the corners of the mouth. The central piece was thrust back between the alveolar arches, where it took the place of the bony palate to about half its extent. The skin was brought together in the usual way by twisted sutures. The effect of this operation far surpassed my expectations. The width of the nose was reduced by one

half, and its prominent tip was so thoroughly brought down that the feature assumed an aristocratic curve of the most enviable contour. The upper lip looked well at a distance, but it was inexpressive, and would not bear a close inspection.

Nævus I have seen treated in all sorts of ways. Vaccination will sometimes impose limits, but I do not regard it with confidence. I may say the same of the external application of mineral acids and fluid caustics. I have more than once cured small nævi by long repeated applications of liq. plumbi diacetatis, undiluted—but these small nævi will sometimes get well of themselves. I once saw the perchloride of iron injected into a nævus situated near that foramen of the parietal which takes a small vein into the longitudinal sinus. The child became instantly insensible, and died in two hours. In other cases I have seen it used, without any such ill effect, so that I consider the misfortune was attributable rather to the locality than the treatment. The introduction of lunar caustic deposited on silver probes is far more effective, but the use of a spear-pointed needle, made white hot if possible, is better. A young fellow had a large nævus occupying the greater part of the cheek. When you put your finger into his mouth, it felt as soft as do the intestines, when you put your finger through the femoral ring into the abdomen. It had nevertheless pushed the superior alveolar process into the middle of his palate. It produced no discoloration outside, so I treated it with the cauterizing needles from within. It got well after some time and remained so for several years, but I thought the last time I saw him there was some disposition in it to recur. I cured another bad case with setons of a single thread each. The patient was a great girl of eleven years of age. The nævus occupied the whole fore-finger, which was as dark and as unshapely as a black-pudding.* I used to pass the silk threads through with a sewing needle, generally three at a sitting. Sometimes I trusted wholly

* I have under my care at this time a large and very prominent nævus of this description, occupying the whole of an upper eye-lid. I have for some weeks treated it with setons, and the venous vascularity is quite destroyed.

to the irritation set up ; sometimes, when an opportunity offered, I would tie the two ends of a thread so as to choke off the blood in one direction, or another. I could not have introduced fewer than seventy of these little setons. There was no bleeding to speak of. When the vascularity was overcome, I reduced the finger which was very coarse and ugly, into shape by strapping it, as you would strap an orchitis. She got quite well, but it took some months' treatment. She has now been married several years, and lives in some village near Exeter, so I know she has had no return whatever. I treated it thus, fearing I might create thecal paronychia by the more usual methods.

After all there is no method like tying. This cannot be done in all cases, but the flatness of a nævus is not the objection some might suppose. I show a drawing (Plate II. fig 1.) of a nævus on the forehead of a little child, which was increasing rapidly under the impulse of whooping cough. I have tied them, when larger than a half-crown, on various parts of the body. You must pinch the nævus up and push German pins parallel to each other under it, always taking care to penetrate sound skin. A broad ligature is then wound round them tightly. In a week, or ten days, the dried nævus, needles, and ligature fall off together, and nothing but a common sore remains. I could not pinch up the skin on the child's forehead, but I found no difficulty in passing the pins under the nævus close to the bone. When the nævus projects, the operation is much simplified.

Epulis is for the most part no serious matter. It can be cut off from the gum with little loss of blood. I have found the tinct. ferri sesquichloridi the best styptic, and if this be repeated every two or three days, there will be no fresh growth. Now and then it grows with great rapidity, and requires energetic treatment. There is a young man now living here (Torquay), who was brought to me when a boy, with an epulis of the lower jaw which pressed most inconveniently on his tongue, and was intruding into the pharynx ; several molar teeth had been removed before he came to me. I cut the growth off, and seared the surface again and again with the actual cautery. Mr. Barnes, whose steadiness at a critical operation was unrivalled, held open the mouth. Subsequently I touched the parts with

tinct : ferri sesquichloridi several times—perhaps oftener than might be necessary, but one must not be nice in such cases. He recovered completely, and is a fine healthy man. Long after this, I had a very bad case. A surgeon, more than usually practised in surgery, called on me, and described an awful case of epulis, (I do not use too strong a term), which he had in the country. I knew I could rely on his account as not being over-drawn—so I flatly refused to go down to a farm-house, and perform a hazardous operation in a room full of gossiping neighbours, who would have thought it genteel to go into hysterics, every one of them, just when they were wanted. He asked me what I would advise him to do, as he thought the girl (who was not fifteen) would be strangled in a day or two. I said “Go home and tell her father what I think about it ; tell him to bring her up to-morrow morning to the hospital, and that I will see to my colleagues being there to meet me. I will take her in at once—it is my week ; and tell him that, as he is in very good circumstances, I have no right to do so, but that I will take upon me to explain that to the Board, who I know will approve of my breaking a rule to save a life.” The next day the girl appeared with her medical man. She was in a shocking state, altogether bearing out his account of her. Her disease had been discovered only three weeks before. There was a great livid mass of hypertrophied gum, reaching from the right lower bicuspid to the ramus of the jaw. It was so large that it thrust out her cheek, pressed her tongue into her mouth, and projected so far into the fauces as to interfere with her breathing. She had had a piece, which I was told pulsated, tied off some days before. In its place there was an odious crater, like the ulcer of a schirrus. It stank insufferably. Putting the risk of suffocation aside, I believe the girl, judging from her cachetic appearance, would have been poisoned in a week by her own inhalations. What should we do ? Mr. James, to whose judgment I would have paid willing deference, advised me to remove the entire base of the jaw as far as connected with the disease. But this would have involved a deformity for life—and the poor girl was so full of courage, so grave, yet so confiding, that I felt the responsibility all the more. I determined not to do that, if I could help it. I should see as I went on. So I

split open her cheek at a stroke from the corner of the mouth to the parotid. Then with a common pocket-knife I divided the epulis down to the alveolar process, within and without. A pocket-knife is much better for rough work in the mouth than a scalpel. It is handier, and its edge will not turn when it meets the bone. Having separated the abominable mass, an expert dentist, Mr. Sheffield, who was so good as to help me, drew the two molars. The bicuspid had been removed already. Then I gouged away the alveolar process to the bottom of the sockets as far back as the ramus. Having cleared away every bit of the epulis, I seared the whole surface, particularly the bone, over and over again with the cautery. It did not take long to do, and the bleeding, though considerable, was not alarming. I brought the cheek together with three twisted sutures, and it united so perfectly that nothing is to be seen but the narrowest line of cicatrix. This was four years since. She is quite well, and said to be the most personable girl in her neighbourhood: a subject well understood on the borders of the moor, where the women are very beautiful.

Before I leave the diseases of the jaws, I will just say that I have seen the superior maxillary bone removed by Mr. James and by Mr. Edye, operations performed as they only can be, by resolute and well-instructed surgeons. Mr. James obtained a permanent cure for his patient, a young man who had a fungus in the antrum. I was struck several years after at the remarkable manner in which the palate had been replaced, apparently, by the inferior turbinated bone. Mr. Edye's was a case of osteo-cancer, which returned after some months, but nothing could be more perfect than the removal of the bone.

The removal of the sequestra of necrosis has become a frequent operation at our Hospital. Mr. Edye had been on private business into the north of England, where he took the opportunity of visiting some of the principal Hospitals. He brought back such an account of the trephining and gouging in such cases, as I should not—for I had old prejudices about me—have believed but on good authority. These operations are now the most frequent we have. For the most part they succeed, and there has not been one fatal termination. We are indebted to chloroform for

these operations, which are so difficult and tedious that they could hardly be performed without it.

Subcutaneous division of tendons is a modern, but most valuable improvement in surgery. I cannot tell how many times I may not have performed these operations. Talipes is the principal deformity so dealt with. I have many times divided the tendo achillis, the tendons of the flexor longus digitorum, of the posterior tibial, and of the anterior tibial; besides the plantar fascia. The latter gives little freedom, owing to the septa. it sends up between the plantar muscles, unless it be divided close to the os calcis. I have never had occasion to divide the tendon of the long flexor of the great toe. If I had, I should divide that in the toe itself. On these operations I will make one remark. Let no one suppose he is going to correct a deformity, however well he may perform the operation. It is the instrument maker, with his clever contrivances, who effects the cure. The surgeon puts the parts in a condition to have the instruments applied—and further it is his duty to see that they are applied to the purpose, until the deformity has ceased. Let no one undertake to operate for talipes, who does not intend to watch the case carefully for months, or it may be for years.

I have twice seen Mr. James cure wry-neck by dividing the sterno-cleido-mastoideus.

The treatment of contractions after burns has been, I should imagine, as frequent and as successful in our hospital as anywhere. For this we are indebted to Mr. James. I need only refer you—if that were necessary—to his paper on this subject in the 13th volume of the *Med. Chir. Transactions*. His essay referred to contractions of the neck. It is so complete that I will describe only one of the many cases which have been under my own care. A young woman, about twenty years of age, came to our hospital some sixteen years since with a contraction of the neck, in consequence of a burn when she was a little child. The chin was adherent to the chest—there was not an inch between them. The cheeks were so drawn down that the eyelids could not be closed. The lower lip was so everted that it almost touched the chest; and the front teeth of the lower jaw, receiving no support, projected right forward—radiating like the sticks of a fan. I divided

the cicatrices of the neck, and then found that the lip was so consolidated within that it would not return to its proper position. I had to dissect up inside the integuments until I came to the true labium. After that I was able to raise the lip from the chin. The following is a fact very curious in a physiological light. The lip, first supported by a slight band, and then by its own muscular power, restored the lower teeth to their vertical position in three weeks. They were upright, though still standing before the upper incisors as in an under-jawed person. It took me two years to heal those wounds, and another year to insure her against a return of the contractions. She has remained well ever since, and is married, and, for her humble station, well to do. I learned all this accidentally, a very short time since, from one of my patients in the Hospital, whom I found to be her brother. Now I mention this case, not for the purpose of confirming the propriety of Mr. James's invention, which would be superfluous, but to show what a length of time and assiduity may be required to bring about a permanent cure. This mode of treatment is said not to have succeeded in some other places where it has been tried. I know the reason,—the operators have not earned their success, and therefore have not obtained it. To lay back a woman or a child, and to cut the throat from ear to ear, was, before the introduction of anæsthetics, a cruel proceeding. It is still an operation shocking to contemplate, and I have never performed it without thinking that those who stood by might dislike me for the future. But to perform it, and then carelessly to leave it, as if the act of cutting were in itself mighty commendable, argues a low view of one's duty to the patient, or indeed of one's duty to the reputation of surgery itself.

The cases however, which have interested me most, are distortions of the limbs, especially those of the arm. Here are photographs, one of the contracted arm of a child six years of age, (Plate II., fig. 2) and another of the same arm nine months after the operation, (Plate II., fig. 3) and another two years after that, (Plate II., fig. 4). It has been said that these limbs contract again. That is the experience of those who say so. I am quite able to affirm from ample experience, that such return of contraction proves neglect in the after treatment. I need hardly say

that a division of the cicatrices, and an extension during the whole period of healing, is the mode of treatment. But this is not enough, the limb must be extended every night for many months after, it is safer to say, for a year. Each case must have its own apparatus for making the extension. A roller bandage carefully put on has an excellent effect in smoothing down the scars.

The amount of personal care required by these cases of restorative surgery is very great. In some of them a single error in dressing might produce great mischief. I had several years ago a terrible accident sent up from Paignton—there at the bottom of Torbay. It must be in the recollection of the surgeons of Torquay. A woman had one side of her upper lip, and the whole cheek above the angle of the mouth, as far as the ear, carried away by a load of small shot. The superior maxillary bone, the palate bone, and the malar bone on that side were totally destroyed. The eye hung suspended over the mouth. I obtained a complete union, so as to close up the gap. I wish I had had photographs taken, for it would be vain for me to describe how I did it, I could not make myself understood without them. However, the injury was well known here, the cheek is restored, the mouth I have made, as she thinks, rather too small, and she has got a second husband, for she was a widow. Now I never allowed any one to dress that woman's face but myself. I think it essential in such cases that one mind should direct, and one pair of hands execute. He, whose engagements will not permit this, had better transfer his case to some one with skill equal to his own—for less will not do—and more leisure or inclination to do the work.

When I first entered the Hospital, hydrocele was treated upon Potts' method. After that, Cooper's mode by injection came in. It was less severe, and, though not quite so certain, was on the whole an improvement. But the later injection of iodine, introduced by Martin, is very much better than either. I use the diluted tincture, one drachm to three of water, and leave it in the tunica vaginalis. I never expect to see its superior.

And now I must trespass on your forbearance. Do not be offended, but I have seen surgeons of high and well-deserved eminence fail in so simple an operation as intro-

ducing a trochar. They have pressed it towards its intended destination firmly, steadily, even swiftly, and yet, though it has penetrated the skin, it has not penetrated the hydrocele, or the ovarian tumour, or the distended bladder. To penetrate these it must be sent in smartly, with a stab in fact, the tumour being kept tense the while. There is no risk—measure off the length you intend to introduce with your finger on the canula, keep your finger there while you strike smartly, no danger can ensue. I saw, a great many years since, a sort of intermediate case—but all the more mischievous for that. A surgeon, of such high reputation that I should startle you were I to mention his honoured name, tapped a hydrocele. He penetrated the tunica vaginalis, but so superficially that, although he drew off the water, the canula slipped out afterwards. This accident he did not observe, as the canula remained within the skin; so he injected several ounces of port wine—I never devoted port wine to such profane uses—into the scrotum. An immense suppuration and sloughing took place, but at the end of three months the patient was as well as could be expected.

We are in the region of hernia, a very serious subject which cannot be dismissed in haste. Strangulated hernia is a complicated displacement of vital organs, varying more or less in every case, and frequently requiring practised heads and practised hands for its correction. When I entered our Hospital the practice was no less dangerous than absurd. Amongst its surgeons there was one at least eminently distinguished, by his skill as an operator—yet the operation was postponed until the patient was “in extremis.” Taxis, venesection, leeches, fomentations, purging doses, freezing mixtures, hot baths, and tobacco-clysters were repeated again and again, until stercoraceous vomiting and a tender and tumid abdomen called for decision. Then, when every known remedy had been tried thrice over, when a third consultation could suggest nothing else, the operation was decided on. Well might the nurses, as I can recollect, say “poor blood, he’s going to be cut, send for the undertaker.” There is a scrap of comfort in all our troubles, and it was always remembered that, though the operation certainly did generally end fatally, yet everything else had been tried and failed before it was performed.

The first person, who in our Hospital shewed the danger of these delays, was the late Samuel Barnes. He operated early, and with such success that the stereotyped routine was revolutionized. From that time our practice has been more than commonly successful. Notwithstanding that success we are open to every suggested improvement. Amongst others, the returning the bowel, without opening the sac and dividing its neck, has been tried with ill-success. In two of these cases which were examined after death, I could see that a part of the bowel was detained and constricted by the neck of the sac. A case lately occurred to myself which seems instructive in this respect, and therefore I will relate it. I was called by a young, but skilful surgeon, to see a patient under the following circumstances. The man was seventy-six years of age. The hernia had been strangulated four days. There had been stercoraceous vomiting for the previous twenty-four hours. The surgeon had laid bare the sac carefully, and made an opening, but found the intestine contained so universally adherent that he could not succeed in reaching the neck from within. However, he divided Gimbernat's ligament freely, but to no purpose. He then agreed with a friend who assisted him to send for me. It was not a pleasant case to deal with. The adherence of the sac to the intestine was unusually firm and extensive. So, finding Gimbernat's ligament deeply cut, I turned up the knife and divided Poupart's ligament as far as I could without risk to the spermatic vessels. Still nothing would move. Then I passed in my finger and knife, and divided several transverse ridges of cellular tissue, firm and wiry as the ligament itself; but on squeezing the hernia, which was tympanitic, I could not force back the smallest quantity of flatus. It was clear then that the stricture was formed by the neck of the sac itself, and indeed so it felt, hard and tight, when I passed my finger round it. I then coaxed a director down from the opening in the sac towards its neck. It moved more freely as it descended, and I cautiously carried it on until it entered the neck itself. I divided the neck and enlarged the opening freely, until I could pass two fingers into the cavity of the abdomen among the intestines. I now found I could empty the bowel, so I returned it and its adhering envelope, from which I could not separate it,

into the abdomen ; or, perhaps I should say, I put it inside the femoral ring. The stricture was however quite destroyed. This old man, who was treated very judiciously after the operation, has recovered. Now had this hernia been pushed back in mass, which it might have been without dividing the neck of the sac, this patient must have died.

Omental hernia will sometimes, when incarcerated, produce great difficulty to the bowel. In some of these cases obstinate costiveness comes on, but still motions are voided from time to time. I have had several of these where rest and warm bathing, with leeches and enemata, have succeeded in keeping down violent symptoms. By slow degrees the patient has improved. I know not how to explain all this difficulty of the bowel, unless it be that the omentum drags down the colon at an acute angle, for the degree of inflammation is not at first such as would create any disorder. However it may be I should wait, unless alarming symptoms occur. When all has become quiet, a light truss may be worn, and under its gentle pressure the omentum, which is in the sac, will sometimes waste away, until it is barely, if at all, perceptible. Some years since, I was telegraphed to come down this way to meet two surgeons on a case of strangulated hernia. I found an elderly lady with urgent symptoms. The history was, that fourteen years before, she perceived a swelling which Mr. Lawrence considered an omental femoral hernia. It was then irreducible, but he advised a light truss, which she had worn ever since. Four days before I saw her, she thought it larger and symptoms of an interrupted bowel commenced. I opened the sac, which contained omentum adhering generally to the sac—this had rendered it irreducible. On unfolding this omentum, just in the middle, I found a very small knuckle of intestine highly congested. This had no adhesions, and was probably first forced into the sac when the symptoms of strangulation occurred. I divided the neck of the sac and Gimbernat's ligament, and returned the intestine. I had some trouble in dissecting the omentum from the sac, but I put it back at last. This patient recovered.

Sometimes the omentum is so changed in its structure that it would be difficult, or perhaps impossible, to return

it, and not prudent if one could. My late colleague, Mr. Harris, had such a case, but I did not happen to be present. It was inguinal hernia. A large knob of omentum was tied, and some intestine was returned. That man recovered. Not long after, I had a little old woman with femoral hernia, who kept a dairy, and was sixty-five years of age. She was an obstinate, wilful old woman, who set everybody's opinion at naught, and put off the operation, out of sheer obstinacy, until it had well nigh cost her her life. It was a large hernia, and the sac contained a considerable quantity of omentum much altered in structure. It was massed almost into a solid body, with very hard lumps larger than nutmegs scattered through it. It was generally adherent to the sac, but especially at the margin of the ring. Concealed by this omentum was a very large knuckle of intestine in a very bad state indeed. It was of a dull claret colour. The veins of the mesentery were excessively distended, and the blood looked as though it were coagulated. There were clots of blood lying loose in its folds. I could feel the edge of the ring through the omentum, and I remember asking Mr. Barnes if I could not cut through it in dividing Gimbernat's ligament. In his quiet way, he said, "You may have troublesome bleeding if you do." It was a good remark of practical value, and worth remembering. So I divided outside the omentum, which I scraped away at the point where I passed the knife, and returned the intestine. The omentum itself was so hard that I could not put it back, without enlarging the opening beyond reason or safety, and it had necessarily been so handled that I thought it better to tie it and cut it away. It weighed five ounces and a half. The old woman recovered, which was more than I expected, and became hearty and active, minding her business, and scolding everybody as before. I recollect Dr. Humphry, of Cambridge, was present, and, I heard, was interested in the case. Last winter I had another case. A woman aged fifty four had for years had femoral hernia. All at once great difficulty commenced in the bowels, though the channel was not absolutely stopped. The hernia became so tender, and the general symptoms so threatening that I operated. There was no intestine. It was a great, hard, highly inflamed lump of omentum, much about the shape of a man's kidney, but larger. It was

hopeless to attempt to push back this solid inflamed mass, so I tied it, and cut it off. It weighed seven ounces and a half. She was in great danger. Her stomach was so irritable that she was kept alive by clysters of beef-tea, brandy, and laudanum, to which was afterwards added quinine. There were intense neuralgic pains in the femoral nerve. Several abscesses formed about the sac, which itself suppurated. She recovered, and is in good health. I said it might not be prudent to return such hardened omentum, even if one could. I was sent for by the late Mr. Hunter, before he practised here at Torquay, to a gentleman who had strangulated omental femoral hernia. There were the usual symptoms, including obstruction, but not absolute stoppage of the bowels. It was agreed that I should go home, and if in the morning when I returned, matters had not improved, that I should operate. Just before I arrived, Mr. Hunter had succeeded in the reduction. The bowels shortly after moved freely, and all seemed right enough—but never since that time, and it must be twelve years ago, has the patient been without a dull uneasiness at the bottom of the abdomen—the effect, I suspect, of a hardened mass of omentum. In another case which I will tell you—but here it is, without more preface—an old man—he was eighty—was sent into the Hospital from Broadclyst. He had a femoral hernia, only of three days' existence, did I take his own account of it. There had been no stool since its appearance, but for the last twenty-four hours there had been stercoraceous vomiting. I operated. In the sac I found nothing but omentum—a hard cylindrical mass, looking like a piece of tallow candle. This I returned into the abdomen—that I am quite sure of, for I followed it with my finger until I felt the bowels. The vomiting ceased, but, four days after, a large abscess opened out from the femoral ring. The matter was copious and fetid. On the fourteenth day after the operation, when the wound was filling with healthy granulations, the entire mass of the strangulated omentum separated and came out. I need hardly say that he had been generously supported all through. He recovered and went home, looking as hard as ever. It may be asked, how it could be that a large mass of omentum, several inches in length, could be expelled from an abscess in the midst of the

bowels without the pus pervading the whole cavity. I have had a case which shows how this might be. Everybody, who knows Exeter, knows what a holiday is made of the fifth of November. At night-fall the Close is thronged. There is the bonfire of fagots and logs, nearly as big as a labourer's cottage; there is the Cathedral, its western sculptures glowing with the warmest tints, and its long north side in shade, blacker than the night; and high in the air the vanes flashing like meteors. There are long files of maskers, quaint and gay, sixty and eighty in a troop. There are Gog and Magog, and pageants still more significant, and fireworks of all hues, and beautiful women at every window, looking green, red, or blue, as the fitful lights reveal them. If you have not been there, you have never seen such a joyous uproar. But the pride of the youth of Exeter is the hand-rocket of their own making. It is of portentous size and brilliancy—it is not to be bought for love or money; but this beautiful firework is almost as dangerous as a grenade, and that night seldom ends without some serious, too often fatal accident. On one of these anniversaries my dresser came to me, and said, a boy had been brought into the Hospital, who he was sure was seriously injured internally. He was so cold and pale that he looked as he were dying, and my dresser had very properly, before he came for me, given him a rummer of hot brandy and water. I saw him a few minutes after this, when he had rallied a little. It seems that a large hand-rocket, thrown into the air, had struck him on the abdomen, and exploded at that instant. There was one small, round, black spot—barely so large as a shilling. He remained very ill—peritonitis ensued, and after some days a fecal abscess opened close by the linea semilunaris. Some days after, another opened under the nipple of the same side. The sheath of the rectus was clearly the channel. At the end of the fifth week the poor boy died—worn out. We traced the sinuses. On the pectoral muscle lay coiled a large lumbricus. When the abdomen was opened we found that the small intestine, directly opposite the black round spot, had sloughed or ulcerated; but the bowels all round had been glued down by lymph exudations to the anterior wall of the abdomen, so that neither pus nor fecal matter found its way into the general cavity.

If the omentum may slough, so may the intestine, and yet the integrity of the intestinal canal be restored. To myself this has always appeared the most wonderful repair of which so highly organised a frame as that of the mammal is capable. The process of restoration is well understood, and I have seen instruments contrived to promote it, though I have never used them. I have seen two such cases. A middle aged woman was brought to the Hospital some eighteen months since. She had two sinuses leading under the falciform process of the fascia lata, from which fecal matter issued. The leg looked shortened, and the hip was greatly enlarged, so that at first any one might have supposed that there was a dislocation of the thigh on the dorsum of the ilium. But the foot did not turn inwards, nor was there anything in the history of the case to support the notion. That history (which involves such an amount of ignorance and coarseness that I rejoice not to know the name of the practitioner concerned, or what has become of him) that history explains these appearances. Some years before, she was attacked with severe vomiting and constipation, in short with all the symptoms of strangulated hernia. No examination, as I understood her, was made. At length the upper part of the thigh swelled enormously, and her mother told the doctor there must be matter, or something of that sort. He simply cursed the old woman for her opinion, and said she might take a pair of scissors and rip it up if she liked. After some days the skin gave way, and out gushed an enormous quantity of feces, which had been, after the death and separation of the incarcerated bowel, injected in some way or other under the fascia, and between the muscles connected with the hip. For a time all the feces passed that way; but this diminished slowly, until reduced to the occasional leaking through the sinuses which I have spoken of. The irritation set up amongst the muscles, had left such swelling and such stiffness that the hip-joint could scarcely be moved. In fact it hitched up the limb, so as to simulate an extraordinary shortening—just as we see in old cases of sciatica. I tried pressure with a spring-truss on the course of the sinuses, but, although the intestine was restored to its proper use, this created so much suffering that it could not be borne. The patient herself observed that, if her bowels

were kept free, the fecal discharge stopped. This indication was attended to carefully. I kept her many months in the Hospital, and for three months, before leaving it, no feces had appeared. She was, during the greater part of the time, in a recumbent posture, which somehow assisted the intestine. I considered her well, when she left, and I have since heard nothing to the contrary. I will just say in addition, that iodine liniments, warm douches, and regulated exercise had greatly reduced the swelling of the hip, that she could bend her thigh at right angles with her body, and walk with the help of a thick-soled shoe. The other case is much simpler. A man was brought into St. Bartholomew's Hospital in 1819, who had had an irreducible inguinal hernia for some years. A heavy iron bar fell across it, great swelling and inflammation followed, with total interruption of the passage through the bowels. On dividing the skin and sac, fifteen inches of small intestine, quite mortified, appeared. A poultice was laid upon it, and the man was left to die—only we thought, while he lived, we would make him as comfortable as we could upon brandy and opium. The loop of intestine dropped off in a few hours, the feces poured through the wound, and the man got better. As granulations sprang up, the discharge of feces diminished, and in six weeks he went out with the wound healed, and the course of the intestine completely restored.

Before I leave this subject, let me say that a considerable majority of the men on whom I have operated had femoral instead of inguinal hernia. I do not wish you to understand that I have found femoral hernia more frequent in the male than inguinal, but, that from its greater liability to strangulation, the operations for femoral hernia have been the most frequent in my own experience. I believe, too, I am founded in saying that, in an equal number of femoral ruptures in the male and in the female, strangulation would more commonly occur in the former than in the latter.

Of rare cases I will just add this one. In 1819 I saw Mr. Lawrence operate with success on a woman who had strangulated umbilical hernia.

I shall surprise you, I doubt not, by treating so important a subject as stone in the bladder with a brevity which

I must explain to justify. Urinary calculus is a rare affection in Devonshire. I believe we have not more operations than three in two years at the Hospital. I myself operated four times in thirteen months, but this is not likely to occur again. The increasing population has not increased the frequency of these cases, for an Hospital has of late years been established at Plymouth, one of the districts from which we derive our few calculus patients. The experience of our county curiously supports the vulgar prejudice on this subject, for we used to look for our supply of these cases to Plymouth, Brixham, Torquay, and Chudleigh, all places geologically distinguished by the old mountain limestone. I have known cases from Topsham, which stands on alluvium with an old red sandstone substratum, but lime has been largely burnt in this parish for six or seven hundred years, and the ground is loaded with its particles. With so small a number of these cases, we cannot suppose that our opinions would be held as of authority. Neither is it to be expected that an operator should display the dexterity found in less favoured districts. Our proportion of successful cases is, I understand, quite equal to that of most Hospitals. How far diet, climate, and the habits of the people may contribute to this comparative immunity, I leave to others to inquire. It is remarkable as a fact, that I have never been required to operate on any patient in private life, nor have I even so much as detected a stone in the bladder of such an one. We have had several successful cases of lithotrity.

Before I leave the pelvic viscera, I will tell you a case in which, about two years since, I removed the uterus. The subject was a delicate young woman of one and twenty, with a weak head and a tender heart, wise enough to be a housemaid, but not wise enough to be a vestal, and so she yielded to the guile of the sour hypocrite who seduced her. As the hour of her trial approached, she went home to her father's cottage to be confined under the protection of a step-mother; and that prudent housewife thought, that, as her daughter had brought a stain on the family, which was bad enough, there was no reason why she should bring a stain upon the feather-bed, which would be much worse. And so it was arranged that she should be delivered in the kitchen, which was a great deal better

than making a mess on the boards upstairs. She was delivered standing, a very favourite method with the vulgar, as economical of linen and provocative of child-birth. And so it happened for once, as one wonders it does not happen always, that the infant slipped out of its mother by its own weight, without any expulsive effort, and, its hind quarters being thus passively enucleated from the womb, the placenta was not crumpled up and detached, as it should have been. Now every body knows, that, however cheerfully a labour may begin, yet, if it last any time, all those present are heartily sick and tired of it. So the gossips asked if the after-birth was coming, and then they admired the baby, and hoped God would take it, and then they agreed that the after-birth was grown to the side. And each one had had her after-birth grown to her side, and so had each of their neighbours, as they could tell, case by case. Depend upon it, adherent placenta must have been endemic in that parish. So a little pressure was put upon the midwife, (for they really wanted to have tea and go home,) and the midwife, if not learned, knew this, that she had one end of the navel-string in her hand, and that the after-birth was at the other end of it. So she tugged away with a will, as though it had been a church bell on new year's eve, and so she turned the womb inside out. The placenta went where placentas go, and all were so glad, when a rush of blood splashing on the stones woke them up to the reality, and the poor girl, weary to utter misery, standing as she had been so many hours, now sank on the ground unconscious of her sufferings, pale as death, it might be death itself. I do not suppose there was any intentional cruelty; such scenes are common enough among the poor, who have their kindly affections as well as others. They dragged her up the stairs, and laid her on the bed, at last. There she lay fainting and flooding alternately—hanging between life and death. And then came over the whole party a vague apprehension of "Crown's Quest Law," and they bethought them that it would be safer, on the whole, if they sent for a doctor. So they sent for two—and kind-hearted men and excellent practitioners they were. They endeavoured, but in vain, to re-invert the womb. The poor creature seemed all but gone, so they desisted. Yet they did not desist from every

judicious means they could devise to save her alive—and she did live, and at the end of three weeks was removed to our Hospital. When she came under my care, the bleeding had nearly ceased ; but she was so utterly prostrate that I took good care how I interfered. The slightest recurrence of hemorrhage would have given the coup de grace. She was put in a small ward by herself under a careful nurse, with a patient to assist, who were to take care of her solely. I confined my treatment to restoratives. She gradually gained strength. Three months after her delivery there was a moderate menstrual discharge. This recurred twice afterwards, and weakened her much on each occasion. At eight months an hemorrhagic tendency became evident. She had, about six weeks before, been made an out-patient. Although the discharge was slight, it did not cease, and she was directly taken into the house. A distinct hemorrhage occurred a few days after. It was not perhaps above three or four ounces, but it reduced her sadly. A few days after, a sudden and larger gush took place. It was determined, in consultation, to tie the uterus ; but it was thought more prudent to wait, as she was considered incapable of bearing the operation. At that time she was almost dead—a few ounces more would have killed her ; but I was advised to wait, and I believe the advice was good. Ten days afterward, which was supposed to be midway between her menstrual periods, I performed the operation. At this time the whole fundus projected through the os uteri. The neck was not quite everted, so that a probe could be passed up about half an inch all round between the body of the uterus and its mouth. Chloroform was given. It produced sickness, and as she vomited, the fundus was forced down just within sight. I seized it with a vulsellum, and dragging it a little, completed the inversion. I gave the vulsellum to my colleague, Mr. Kempe, and, passing my finger up, distinctly felt the uterus terminating in the vagina. I was quite sure no bowel had entered the womb itself, so I passed up Gooch's canulæ and nipped it with the ligature at the neck, close to the mouth. The frame was run up the canulæ instantly, the ligature fastened and turned tight. The change of colour showed the strangulation was complete. The operation was easily performed, and so

quickly and quietly, that only those, who were close to me, knew that I was about it. On waking up she complained of severe pain in the hypogastrium. An opiate was given which relieved it. Then came the difficulty of supporting her, utterly exhausted as she was. Strong brandy and water iced was the only food her stomach would retain. So an enema of strong beef tea was thrown up every six hours. Tympany and tenderness over the bladder came on next day. Calomel and opium were given hourly, five or six times. Turpentine stoups were used. On the fourth day five grains of quinine were added to each enema. The discharge from the vagina was perceptibly fetid. After that, diarrhea came on, which was checked by starch and opium injections, but the nutrient injections could not be continued. The foetor increased daily, and the vagina was gently syringed out with a weak solution of chloride of zinc. Her pulse all this time ranged from 120 to 150. She evidently was affected by this putrid mass, which I could not detach ; so I had her well sponged several times a day with a nitro-muriatic bath—for I dared not give acids internally with diarrhea threatening. This refreshed her greatly, and so I went on until she gradually recovered, and returned to her ward in three weeks, convalescent. One thing surprised me. I expected that the dead uterus would drop off, instead of which it withered, and as it were melted down, but its shreds stuck tenaciously to the last. They could not be twisted off or pulled off, but separated of themselves in little fibrous bundles. She has quite recovered her health, although she does not menstruate. On examining with a speculum no one could suppose any operation had taken place. The os has resumed its natural position and appearance. Perhaps it is drawn up rather higher into the vagina than usual. A probe will pass in just half an inch. I have had no opportunity of ascertaining whether her feminine appearance has altered in any respect ; but she is strong and in service. As the internal membrane of the uterus can very seldom be seen in the living subject, I will mention that once when I examined this girl with a speculum, it was loaded with reticulated vessels like an inflamed conjunctiva. This was supposed to be near her menstrual period, and the next day she had some hemorrhage. Another time it appeared grey and

smooth—much like the peritoneal aspect of the womb. Again, at the operation, I could distinctly see tape-like, whitish reticulations, the meshes filled with pink flocculi.

Six years before, I had used Gooch's canulæ for a different purpose. Not many of you can have known poor Gooch as I knew him. He was the very type of the medical gentleman, so sagacious, so accomplished, so refined. The mind shining out so brightly from his attenuated body, the very sword wearing out the scabbard,—but I am only speaking of his instrument. A man verging on sixty years of age, came down from Dorsetshire with a cancer of the tongue. He was constitutionally dyspeptic, and for many years had had burning and darting pains in the tongue. Seven years before I saw him, its forepart enlarged and grew hard. Somewhat less than a year before he came under my charge, it ulcerated. There was at the time of the operation a hard cancerous mass in the tongue on the right side, with a foul deep ulcer. The surface of the opposite side was hard and irregular, so that half the tongue was diseased. The hinder portion seemed healthy enough. Having seized the tongue with a strong pair of bull-dog forceps, I drew it forward out of the mouth. I then passed a ligature-needle, fixed in a handle, carefully through the mesial line of the tongue as far back as I could. I inserted a ligature and drew it through doubled. I divided the loop, making two ligatures out of one. The perforation was behind a line extending from one angle of the mouth to the other. If I had tied right and left, I should not have included the whole of the disease. I therefore drew the tongue strongly out of the mouth towards the left, and making a deep cut on the exposed right side, as far back as I could, I tied a ligature tightly, and then doing the same on the opposite side, I succeeded in strangling the protruded tongue considerably behind the angles of the mouth, the cuts on each side, and the perforation in the middle preventing the ligature from slipping forward. After five days it was evident that a very small portion on the right side of the tongue was still alive, and the ligature was getting slack. Then I applied a ligature round the whole by means of Gooch's canulæ. The projecting instrument was inconvenient, and the fœtor abominable, in either respect really worse

than a cigar. On the eleventh day the whole came away. I was not acquainted with the ecraseur at that time, if indeed it were then invented. In seven weeks it was healed, the patient speaking distinctly with the stump of his tongue. Four years after, he came to the Hospital, quite unexpectedly, on one of the mornings when I visit my patients. He said he thought it his duty to let me see how thoroughly I had cured him, and to thank me and the nurse—he made no distinction of persons—for the kindness we had shown him. We always had thought him a correct man, though austere; but this time every one was struck by the gravity and intensity of his manner. He returned that day and committed suicide.

Within these few years I have had three cases of Polypus of the nose, projecting backwards into the fauces. As these growths were removed by ligature, I will speak of them now. The first case was the worst of the three. Just about this time ten years, a lad of seventeen was admitted into the Devon and Exeter Hospital with a large firm polypus, the size and shape of a common pear, projecting downwards from the nose behind the soft palate into the pharynx. The soft palate was convex towards the mouth, and stretched tight across the polypus, which reached so low as greatly to interfere with breathing, especially during sleep. The surface was smooth, and the texture firm and elastic. It had been growing for four or five years, and there had been copious and repeated bleedings, not from the mouth but from the nose. The right nostril was filled by a very firm polypus, and there was a common polypus in the left nostril. Having tried in vain to noose the great polypus by the canula and watchspring used for plugging the posterior nostril, (the noose was passed round the polypus, but was cut through by the spring,) a silver canula with two small holes at one end, and a ratchet-wheel and a catch at the other, was armed with a silver wire doubled, the loop projecting from the the two perforations, and the two ends attached to the axle of the wheel by which it was to be tightened. The loop was pushed along the floor of the right nostril, until it appeared between the soft palate and the polypus. It was then opened out by the fingers introduced into the mouth, and immediately pushed behind the polypus, so as to

include it. The canula was then tilted up as high as it would go, so as to reach the root of the polypus, and the wire was screwed tight. There was no great difficulty in this operation, but it required several repetitions, partly from the extraordinary thickness of the base of the polypus, but more from some fault in the wire, which made it kink and snap. The tightening of the wire produced the most excruciating pain in the side of the face, and along the teeth of the upper jaw on the right side. When I had reason to think that the base was nearly cut through, I passed a strong ligature through the substance of the polypus, and fastened it to his right ear; for I feared that, if it became detached during sleep, it might choke him before it could be removed. He was told to pull at it for his life if he found himself strangling. However, when it did separate, its size and firmness prevented its sinking so low as to endanger him. I then dragged it through his mouth with a vulsellum, and, notwithstanding every precaution, thought I should have ruptured his soft palate in doing so. There was some considerable bleeding, for I do not think the whole could have been cut through by the wire. The separated tumour was the size of a small orange, and amply supplied with blood-vessels—one of them large enough to admit a probe. To the naked eye it was fibrous in concentric layers. The microscope showed it traversed by fibrils radiating in every direction. The interstices were filled with granular matter. The surface was covered by a layer of lymph, in which the microscope showed an abundance of fibrils. The surface of the tumour cut by the wire was as large as a half-crown, expanded, it would seem, to that size by the elasticity of the structure. On passing the finger up, behind the soft palate, the base of the polypus could now be felt on the palatine and pterygoid processes of the palate-bone. It was a large, raw, protuberant surface as big as the top of one's thumb. This was touched daily through the mouth and nostril with nitrate of silver. A few days after, violent bleeding took place from the nose and mouth. He lost more than a pint and a half of arterial blood in no time, and was reduced to a very dangerous degree of faintness. He remained seriously ill from exhaustion for some days. The root of the polypus at the back of the nostril was well sprinkled with tannin

and burnt alum, which were conveyed through the mouth in a curved tube, turning up behind the palate until it reached the sore surface, and discharged by a puff from the other end. This was repeated daily until all disposition to a fungoid growth was over. Meanwhile the polypus in the nostril grew perceptibly. The right nasal bone was protruded by its pressure. Considering the dangerous bleeding from the polypus of the posterior nostril I did not like to pull it down with the common nasal forceps. I tried therefore, several times, to noose it with the instrument I had used before ; but the nose was so plugged up I could not succeed. I therefore divided the ala from the cheek and nasal bone, and turning the flap forward, exposed a very firm, red, and vascular polypus, about three times the size of an almond, attached by a pedicle to the upper part of the nostril. This polypus I tied, and it became livid. Then I laid back the flap in its place, and fixed it by several fine sutures. The polypus fell off in two or three days, and the flap united so as scarcely to show a scar. I need not enter into the treatment of the left nostril, which, as I have said, contained a common polypus. The man rides down with his master's horses every year from Wiltshire to Cornwall, and always calls at the Hospital by the way. He remains quite well. Mr. Clapp, who was House-surgeon at the time, took extensive notes of the case. He has kindly lent them to me, and I find they quite confirm my own recollections.

An excavator on the railway, a compact, strong built man, forty-eight years of age, came to the Hospital about a year and a half since with a polypus of the left nostril, the larger part of which projected into the pharynx as far down as the epiglottis. It was pear-shaped, upwards of an inch and a half in diameter at its lower part, and felt half as thick at the posterior nares. It was tied by the same instrument as in the former case. It ulcerated from pressure, as could be seen by lifting up the soft palate, but did not separate. On tightening the wire broke, owing to a kink. It was reapplied, the polypus turned as black as a pickled walnut, dropped off, and was swallowed. Another polypus, but much smaller, was then discovered. It was not touched, as the patient, who was much relieved, had business of some importance to himself at some distance from

Exeter. He went out, therefore, with a promise to return if he became worse. Previous to his leaving the Hospital, the polypus of the nostril was cleared away in the usual manner. He called on me about four months since. The polypus from the posterior nostril had disappeared, there was no trace of it—the whole nostril was clear. He was going to work in Yorkshire, but said, if he had any return, he would come back to Exeter. This case brought back to my recollection another which I had quite forgotten. A young man in the same ward with the last patient encouraged him by saying that I had performed the same operation for him six years before. He had quite grown out of knowledge, and as, after tying the polypus, the case had been attended with no difficulty, it had escaped me. The nurses, however, and the young fellow himself, brought it all back to me. He had had no return. I may observe, (though I have no right to generalize from so small a number as three cases) that there was not the same tendency to recurrence, as marks the less important cases of polypus of the nose.

We have lately used the ecraseur in several cases. When used for proper cases it is valuable; but, like all other valuable inventions, it has had its reputation perilled by unreasoning advocacy. In the following case it succeeded admirably. A year ago, a man fifty-three years of age came to the Devon and Exeter Hospital, with an enormous epithelial fungus on the pubes. It was seven inches by five, and projected upwards of three. It overhung its base, which was circular, and two inches across. It was as nasty a thing as you ever saw, wonderfully like a cauliflower, with a tinge of pink, but dirty-looking, as though it had been watered with dirty water. The smell was so offensive that he was hardly fit for a general ward. It took an hour and forty minutes for its removal by the ecraseur. The sheaths of the pyramidales and recti were bared, and the superficial fascia lay in shreds. There was no bleeding. He was under chloroform all the time. It healed readily. This fungus commenced seven years before, and had been twice removed by the knife. I conclude he remains well, as I have heard nothing to the contrary. Mr. James has made a section of this fungus and prepared it for the museum. There are enclosed in its base three

oval bodies, like a pigeon's eggs. It is very like a bird's nest which has been petrified, and Mr. James is as proud of his specimen, as a boy of the *spolia opima* of his half-holiday.

Had I been obstinately prepossessed in favor of circular amputation over amputation by flaps, I could hardly have been blamed, for the circular amputations which I saw, during my apprenticeship, were perfect as to precision and rapidity. The Mr. Peppin, of whom I spoke, was an admirable operator; his lithotomy equalled that of Sir A. Coopér and of Lawrence, in their best days; but as an amputator, he surpassed every surgeon I have seen. Still I perceived the advantages of the flap operation, as soon as it was proposed. The objection that it conduced to hemorrhage by obliquely dividing the vessels, I met by excluding the principal vessels from the flap, and dividing them right across. Thus, in amputating the leg, I trans-fixed the limb posteriorly to the principal nerves and arteries, and having formed the flaps, I then divided them, with the muscles on which they rested, perpendicularly to the bone. This I have always done, when practicable, in amputating the arm and fore-arm. When injury on the back of the fore-arm, or the emaciated condition of the skin, compelled me to take my flap from the inner aspect, I have always tied the vessels high up, and sometimes taken out the median nerve beside. Nor did I ever find the stump fail for want of due nourishment to the flap. In amputating after accidents, I have never used any exact method, but I have been guided by the anatomy of the parts. This particularly applies to the fore-arm. I get the flap or flaps, where or how I can; but am careful to divide the principal vessels and nerves straight across, and to leave, as uninjured as possible, those muscles which are to pronate and supinate the stump, however short I may have to make it. I continued for a long time to use the circular method for the thigh; but of late years I have adopted the flap operation in many cases.

These operations so closely resemble those now recommended by Mr. Teale, that at first I took them for the same. He makes two longitudinal incisions, and then forms his flaps by cutting from without, inward, perpendicularly to the length of the limb. I make two gashes

which correspond to his incisions—I will explain presently what I mean by the word gash—but after that, when there is sufficient substance, as in the thigh or arm for instances, I transfix, and cut from within, outwards—bringing out the knife more or less obliquely. So that while his flaps present segments of circles, mine are segments of conoid sections—the difference between the mouldings of Roman and Greek architecture, if you desire an illustration. I have not altered my own mode since I became acquainted with his; partly because my method does not strain the skin so tightly over the bone, but gives it more play: and partly, because I think it less painful—for which I will shew you my reasons.

Before the introduction of ether, or chloroform, it was a great object, as far as one could, to diminish the pain inflicted by cutting instruments; and as those medicines may not be at hand, or may from some cause or other be inadmissible, I will tell you what my own practice was before anæsthetics came into use. We all know that a cut suddenly made is frequently not discovered until the blood draws attention to it. If sudden and unexpected it frequently is not felt. Now I always divide the skin, as the most sensitive part, as rapidly as I can. Where, as in amputations of the character of Mr. Teale's, or of my own, there can be no error as to the depth, and hardly as to the length, I make a gash, that is, instead of dividing the skin with a slow and regulated movement, I make a smart and sudden cut. It is instantaneous, and but slightly felt, if felt at all. I have repeatedly completed the division of the skin so suddenly that the patient has scarcely known it. This is what I term a gash. I regard an incision as a more measured act.

There are parts where this bold and rapid division of the skin would be hazardous—as in dividing cicatrices under the chin. In these cases I prefer transfixing with a long slender knife, and then cutting out. For some reason or other, the pain is much less if you cut from within, outwards. It may be that by dividing the filaments of the nerves before they expand finally, you cut off the organ of sensation ere it takes on its most sensitive quality. Therefore, when chloroform cannot be used, I make the

gash in some cases, or the excision in others, as being far less acutely painful than the more deliberate incision.

Scissors should never be used unless the patient has been rendered totally insensible. The pain is much severer than that inflicted by a knife. To divide a nerve with scissors is the most cruel act of which an operator can be guilty.

I have seen my colleagues perform all manner of operations on the foot and hand—Chopart's and Syme's, and others,—well devised and excellently adapted to their purposes. I know not whose operations I may not have performed, for my own course is very simple. First, I ascertain, as precisely as I can, the extent of the disease or injury. Then I consider the anatomical relation of the parts. Then I operate. It is a convenient method because it adapts itself to all sorts of contingencies. I think this case has some novelty of treatment, and I mention it because it illustrates my habit of taking my cases as I find them; and (looking to the conditions under which they present themselves) making the best of them I am able, without any predetermined mode of operating. A man had his hand caught in some kind of agricultural machine. The skin was torn off from the back of the hand as far as the wrist, leaving bare the four metacarpal bones; the skin on the back of the four proximal phalanges was also destroyed; the phalanges themselves were broken, those of the middle and ring fingers were crushed to fragments. The skin in front of the fingers was not much injured. As he was a fresh, healthy countryman, I thought I would save his hand, with the fore and little fingers if I could; so I dislocated the phalanges of the ring and middle fingers from their metacarpal articulations, and making an incision up each side of those fingers into their distal phalanges, but so as to include the digital arteries and nerves, I made two long flaps out of the sound skin in front. These two flaps I turned back over the metacarpal bones, and, when they were flattened out, they quite covered the flayed back of the hand. This case did very well, for the fore finger retained its movements, and the little finger, which stiffened in a slightly flexed position, was nevertheless movable on its metacarpal bone. He did not, as far as I could learn, feel with the back of his hand,

as though it had been with the tips of his fingers, perhaps because the extreme tips themselves were not included in the flaps.

Excision of an articulation was first performed in Exeter by Mr. Cumming on a Dispensary patient. It has been repeated at the Hospital many times, for the most part for disease of the knee-joint. On the whole the practice has been satisfactory. At all events there has been no fatal case, and some of the limbs have been of excellent form. Supposing that the disease is confined to the cartilages there can be no doubt of its being preferable to amputation. It is not attended, so far as my observation goes, with greater danger than amputation, if so great. This is more than I had hoped for.

Tumors of the female breast form a most formidable section of surgical disease. The colloid and encephalic forms of cancer, particularly the former, are rare, and, I fear, hopeless. The schirrous variety admits of successful removal, occasionally to say the least. Our practice at the Devon and Exeter Hospital is to remove as early as we can; and this practice is far more successful than is usually allowed. We never hesitate if the tumor be not adherent to the pectoral, if the glands of the axilla be not enlarged, or if the skin be not extensively diseased. We do not think a slight adhesion, which dimples the skin in some one place, or a tucking-in of the nipple, sufficient to forbid the operation. Even should the disease return, as it not unfrequently may, when these unfavourable complications exist, the great mass of gland, in which it makes such fearful ravages, has been removed, and mitigated ulceration takes its place. Or if the viscera become the seat of cancer, the disease is shorn of its worst horrors, and the patient dies without greater suffering than usually attends a dying bed. Still, even these advanced cases sometimes are permanently cured.

The prospects of absolute cure by removal of a schirrous breast depend much upon the temperament of the patient. The full-blown rubicund matron of fifty has far less to hope for, than the little, spare, withered spinster—supposing the disease and age alike in each. In really old age the progress of the disease is so slow that it is hardly worth while to operate. It is the jolly dame, with her huge mass

of diseased breast, who has to endure the more odious—as it is the strong hard woman, with her vigorous health, who holds out longest, and has to endure the more protracted suffering. If they die—and they usually do die—it is in their cases that the operation confers the greatest benefit—short of a cure—by compelling the disease to assume a more endurable character.

I was consulted, I should think more than twenty years since, by a lady for a tumor of the breast. She was a little thin woman, who had married a staid elderly gentleman so late in life that nothing came of it. She had not anything in the place of the left breast, except a hard schirrous lump with a nipple rooted into it. The axilla was healthy. I removed the tumor, which divided like a turnip—the true schirrous section. I hear she has been a widow some years. I saw her in the street a few days ago—I fancy she lives in the neighbourhood. She is brisk and healthy still, though approaching eighty, as I guess.

This is a nice, and let me add, by no means a singular, or even a rare case. We must sometimes however be content to mitigate suffering, where life may eventually be lost. A lady shewed me a tumor in her breast. It was the very case for removal—but unfortunately I consulted an eminent surgeon who thought that it was not malignant, and that it would not be right to suggest an operation. I was much annoyed, I confess, for I knew well enough what a distinct tumor, the size of a small orange, appearing in the breast of a woman of fifty-four, would soon come to. However, it remained very quiet for many months, when it began decidedly to increase in size and hardness—or rather perhaps its original hardness became more evident as it pushed through the adjacent tissues. On a second consultation it was decided that the operation should be performed without delay. The wound healed, but after several months, the skin, or rather the fat under it, became unnaturally firm and bulky along the inferior edge of the pectoral. I have seen this deposit in the anterior fold of the arm-pit in other cases. There was no distinct tumor, not even a tubercle on the surface. It was as though the adipose tissue itself was infiltrated with schirrous matter. There was no tendency to ulceration, nor did the axillary glands enlarge. I simply had it

protected from pressure. In this way it went on, really not getting worse, for more than a twelvemonth. One day I was sent for, as my patient had a slight colic. I believe it was a spasm wholly unconnected with her terrible disease—but, passing my hand across the abdomen, I found the liver noduled and as hard as a stone, projecting below the margin of the ribs. It never had given any pain, or caused any inconvenience up to that time, so that the discovery was altogether accidental. By degrees she became dropsical, and so she sank after five or six months' illness. I had no reason to suppose that the rectum, or any other bowel was cancerous. I never saw a less painful death. She slept to an incredible degree, simply waking to take food, to pray, to recognise the kindness of those about her and then to sleep again. How different her end would have been had the disease been allowed to take its course, only those who have watched the horrors of an open cancer can too surely tell.

In the case of another lady, who had had the breast removed by a distinguished surgeon in Town, there was just this thickening of the anterior fold of the axilla. He was consulted by letter, and in return repeatedly pressed me, I think unfairly, to operate again. But the altered structure was so totally undefined that I positively refused. At last, to put an end to a troublesome and dictatorial importunity, I persuaded her to go up and see him. A personal examination wrought conviction; so she returned without anything being done. Some months after—between two and three years having elapsed since the operation—she was carried off suddenly—it was supposed by apoplexy. I believe no examination was made, so that how far her death was owing to cancerous disease was never made out—but no external ulceration had taken place, nor indeed had there been any pain, or inconvenience. I think it will be allowed that she was a great gainer by the removal of her breast in the first instance, though a second operation, which must have been performed at random, was obviously improper.

A more common form of recurrence is the appearance of one or more schirrous knots on, or near the cicatrix. If there be only one or two I remove them. The late Mr. Barnes had removed a schirrous breast. A year after, a

knot, the size of a large pea, appeared in the cicatrix, and she then became my patient. I removed this little lump, and a year or more after that I removed another just like it. I know this woman was alive and well many years after.

I had a case of my own precisely similar. I removed a schirrous breast, and twice over I removed hard knots,—one from the cicatrix,—one near it. This was more than ten years ago. The patient has always been asthmatic, but she was alive not long since, and had no schirrus about her.

In another case I removed one such schirrous knot. After several years I saw this patient again. There had been no return in the cicatrix, but there were glands of a suspicious character above the clavicle. The woman was in no pain, but her breathing was affected, and her health generally was failing. I have heard nothing of her for some time, but I suppose she has died of hydrothorax.

A remarkable case has for several years past been under the care of my colleague, Mr. Edye. He removed a schirrous breast from a woman, who must have been sixty at least. She had been, and still remains, a very fine woman, remarkable for form and stature, but not of a full sanguine habit. That breast healed, and remains well, but in eight months a similar disease seized the other breast. She determined, in opposition to meddling friends, to have this removed; for she was a brave and intelligent person, quite above the ordinary class of hospital patients. This second breast healed, and remains well, but I hear that schirrus is beginning to develope itself in the liver. Of course she will die, but she will die without the loathsomeness of open cancer.* The cancerous diathesis in this case was remarkable. Her mother died of cancer of the womb. I attended her. Her two sisters died of cancer. A brother died of cancer. They were in person, as in all other respects they were in health, as fine a family as could be seen. Were the operations justifiable? Why not?

* Whilst this pamphlet is in the press she has died. There were several little tumours on the chest, and glands perceptibly enlarged and hardened in the axillæ. They had scarcely given any pain or annoyance. The liver was studded with schirrous tubercles and one of the kidneys was similarly affected. Several schirrous knots were found on the peritoneum. She had the ordinary symptoms of ascites.

A courageous woman prefers immediate suffering to protracted misery. She desires to prolong life by a year or two. Who will forbid her? Only he who can coldly contemplate his patient's shortened life and utter misery, rather than risk the chance imputation that "his operation has proved a failure." In this case, extreme as it is, I respect the courage of the patient, and of her surgeon; and approve the decision of the one, and the act of the other. I do not understand the plea of refusal. Is it that the constitution is tainted? that may be so, or it may not. But I never heard yet, if a patient were sinking with a diseased joint, that any surgeon—other than in name—refused to operate because the constitution was unquestionably strumous, and tuberculosis might, at some period indefinite, develop itself in the lungs, or the liver, or somewhere else. The questions put are plain, honest, and humane. Is there any hope that this joint can be saved? Can the patient bear it any longer? No. Then remove it, and let us hope for God's blessing.

A few years since, a gentleman called on me, and shewed me a genuine cancer of the breast. His right mammary gland was schirrous, and ulcerated. The skin appeared so healthy, and the tumour moved so freely on the muscle beneath, that I recommended its removal—fairly putting before him the possibility of its return. He winced at this and consigned himself to the irregulars. He tried Hydropathy, which he was assured was admirably adapted to such cases as his. When, at the end of two months, he hinted at his increasing disease and his waning purse, less sanguine hopes were expressed,—but it was suggested by the Hydropath that a Homœopath should be consulted: and, still more considerately, it was proposed (as the Hydropath thought it just possible that his friend the Homœopath might differ from him in opinion) that a clairvoyante should have the two opinions referred to her, and determine which was right. The patient was a plain simple man, but this was too much for him, so he wended his way home again to die. He told me this story shortly before his death, and, as he was a careful, veracious person, I believe every word of it. Indeed, some of you may think it involves no inherent improbability.

Neuralgic breasts, with irritable mammary glands, not

unfrequently occur in young women. They are usually connected with disturbed uterine functions. These cases can hardly fail to be recognized.

I have seen breasts hypertrophied to a great extent, but I never saw a case where I thought an operation justifiable. If not very large there is no harm in them, and if very large, I should not like to be responsible for the result. This was already my impression, when the case I will relate confirmed it. A young woman, a servant in a family who resided in Somersetshire, came under my charge at our Hospital. She was what might be called a fine bouncing girl. Her breasts, I suppose, were large in their ordinary state, but one of them had grown to a very undue size. It might have been three times as big as a good sized breast. But there was nothing else wrong about it; it was a simple hypertrophy. She was quite strong enough to carry it; it was not much in her way; and, but that her mistress noticed it, I am not sure that she would not have been proud of it. She must have been under my care as an out-patient for a twelvemonth, more or less. I tried pressure, and Iodine in various forms, with no effect. However, it did not increase, so I discharged her, thinking that some day or other she might have children, and that nursing might do it good. Shortly afterwards she went into a Hospital in London. The breast was removed, and she died two days afterwards. This is the only fatal removal of a breast I ever heard of.

I have a man, a sailor, now under my care at the Hospital, with one breast hypertrophied. It looks just such a breast as you might expect in a girl of seventeen. He is a small man with a sandy imperial, pendant from his chin like the beard of a Nanny-goat. He thinks he may have bruised it when leaning over a yard, reefing. I have made no progress, and shall send him away, as there seems little prospect of its reduction. I believe no harm will come of it.

And now I come to a class of mammary tumours surrounded by difficulties, not from their own nature, but from the unsettled notions of Surgeons regarding them. I speak of tumours called benign in technical language, but which will rarely fail to kill the patient, if time be given them. They may last from youth to middle age

without annoyance or danger, but as the cessation of the catamenia approaches, they degenerate, and take on a deadly character.

A lady, distinguished for her magnificent person—and here let me observe that some of the stateliest and most beautiful women I ever saw have fallen the victims of these terrible diseases—this lady married at the age of seventeen, and was, as I have been assured, and can well believe, one of the noblest and most beautiful examples of early development. Within a fortnight after her marriage, in getting off her horse, she struck her breast. Shortly after, a small tumour, the size of a pistol bullet, was discovered. It gave no pain; it was not inconvenient; she had several children; it was no hinderance; it ceased to be noticed—perhaps it was forgotten. When she was approaching fifty it began to be felt, and it grew much larger, and it continued to grow, until there was no denying that it was a true schirrus—a stone cancer. How long it continued in that state I never clearly understood, but it was removed. After a year or two the skin was full of schirrous tubercles, which ulcerated, and then I saw her for the first time. She lived a couple of years after that in a very wretched state, though certainly not so bad as if the whole gland had remained, and then she died of effusion into the chest. Now I do not suppose that any one could be found who would suggest that this was more than a harmless tumour at first; or that the constitution could have been tainted, until its final development commenced. Why then were thirty long years permitted to steal away? And yet I will venture to assert that, did such another case present itself to-morrow, I would find those—so high in place that it would be held presumptuous to question their judgment—who would reprobate the knife, and call the growth benign.

Let me speak of some one of these benign tumours—say cystic sarcoma; a disease strongly marked, occurring nowhere in the female but in the breast, an especial local disease. Nearly thirty years since I removed a breast thus affected. The lady is alive and well—a person whose admirably directed energy and activity have rendered her an invaluable member of society up to the present time. You will say, of course she was cured: what is there remark-

able? The disease was limited to the part, you removed it, and there was an end of the matter. That is exactly my own view of the case—yet, because this tumour unhappily has been called, in technical language, benign, it is too often treated as though it were innocent. Now this benign tumour may, nay probably will, go through successive degenerations, until it becomes as frightful a mass of disease as can destroy life.

A lady—between fifty and sixty, but a remarkably fine and healthy person—shewed me a tumour in her breast. It was of no great size. There could be little doubt of its being cystic sarcoma, which it proved afterwards to be. She was very averse to an operation, and was confirmed in her prejudice by another opinion which she took. She then went to Town, and consulted two surgeons of great eminence—one of them a personal friend from childhood. They pooh poohed the idea of an operation, and prescribed a saturnine lotion. She returned in high spirits, concluding that the lotion would effect a cure—she had not been told that it would not. All this while the new growth was displacing the original structure. She kept up, with my full knowledge and approval, a correspondence with her old friend, who, finding from her description that matters were becoming serious, strongly urged my puncturing any prominent cyst with a small trochar. This she regarded in the light of an operation, and resented as a breach of compact. I told her plainly that I had seen that practice, and certainly should interfere in no such manner. She was desirous moreover to collect the discharge from any cyst which might open. This was done, and a small quantity, clear as spring water, was collected and sent up. I myself read the letter in reply. The little phial had been taken to the College, its contents had been examined under the microscope, it was all right, the tumour was not malignant, and then came congratulations, &c. But the tumour grew bigger and bigger, the cysts were heaped up over each other, the skin became livid and mottled, the discharge sanious, the whole mass was adherent at its base. Then came down the instruction that I must remove the whole without any delay. She knew that it was too late—well might she exclaim indignantly, “I have been betrayed.” And yet she did not die the victim of this shilly-shally practice, and sentimental

surgery. An inclement day ; a careless exposure ; a rheumatic cold ; an effusion in the pericardium ; a sudden, a painless death rescued her from the intolerable ills awaiting her.

How happy her escape, how merciful her end, this case will shew. One day my servant shewed in a remarkably pleasing person, who told me she was considerably more than forty, which I should not have supposed. She was very lively and talkative, and said she had shewn her breast to Mr. Barnes a year before, but as she found he did not care to see patients any longer, she had called on me to know what I might think of it. Well, I thought to myself, I daresay the poor creature with all her vivacity has trouble in store, but she takes good care of herself with that mountain of wraps. She drew aside her shawl, and, unpinning her gown, there was the breast. I had never seen such a sight before. It stood out like a collar of brawn, as coarse, and as large,—brown, red, and purple of all hues. I called on her medical man, and, through him gave my opinion that the case was past remedy. Her relations said that she should go to Town for further advice, and I recommended her husband, as the expense was really no object, to take her up at once, or he might be reflected on in future. She saw one of the Surgeons of Guy's, and Mr. Lawrence, and, I think, Mr. Paget, who gently, but plainly, told her the truth. This gloomy view by no means suited her buoyant spirits, so she resorted to those who were more agreeable in their prognostics, and remained, for the few months which preceded her death, the victim of charlatans. I have been told that fungoid growths, and repeated hemorrhages terminated this dreadful case.

Not long after, I was invited by a Surgeon to go down about thirty miles, to see a patient of his who had a diseased breast. He added that I had better bring my instruments with me, in case I should think it advisable to remove it. I found just such a horrible case as the last, but the breast was more "gnarled," if I may use the word. Of course I declined the operation, giving as my reason that, if she did not bleed to death at the time, I should leave a wound on her chest not much less than a foot in diameter, without any skin whatever to cover it.

He was a sensible man of considerable practice, and I doubt not he saw that I was surprised at his dreaming of an operation, so he put into my hands a letter, dated but six weeks before, and bearing the signature of one, whose great reputation had prostrated his own common sense. It was an ill-tempered letter, dwelling, for three pages together, on the peculiarities of the poor woman's manner, which might have been absurd enough, for she was elderly and hysterical. But could aught be more absurd than his directions, to puncture from time to time the tumour, where prominent, yet to give no warning; or, than his own obscurity of style, that "the breast was not at present fit for an operation,"—by which I suppose he must have meant that the time for operating had long been past. This poor creature died three weeks after of water on the chest; but there had been no ulceration, and consequently neither fungus nor hemorrhage.*

And these are benign tumours. What if they really were, which they are not, innocent tumours, would they be permitted to remain elsewhere than in the female breast? Is that the only part of the body where surgical relief is to be denied? Are the ominous reports of Hill and Macfarlan to sway our minds for ever? Men who, with all their candour, seem to have failed in the one imperative duty of withdrawing from the practice of our art, in which their ill-success was flagrant. And then we have statistical reports to which I attach no such implicit credit, because every one acquainted with business knows that figures may be made to give any result expected, and my

* Since this address was delivered I have met Mr. Richard Spicer of Chard, (a Fellow of the College, and an excellent surgeon,) on a case of mammary tumour. We agreed as to the propriety of operating without delay. A few days afterwards he removed it, and was so obliging as to send me the tumour, which throws light on this obscure subject of degeneration. Previous to the operation it appeared like several cysts conglomerated. It proved however to be a single *lobulated* cyst, containing nearly two ounces of a transparent yellowish fluid. At one spot, about the size of a threepenny-piece, the cyst was at least four times as thick as elsewhere. It was a patch, with a raised and defined margin. There was a smuttiness upon it, as of minute melanotic dots. I have no doubt that this was the very first stage of a degeneration, which would have proved fatal. The patient I am informed discovered a small tumour nine years ago. On arriving at the age of forty-nine it began to grow rapidly, and, not long after, I was consulted.

own experience, as well as the experience of those with whom I am associated, tells a far more encouraging story. Let those, whom it may so please, draw their squares, and add up their columns to the "crack of doom,"—our duty remains clear and immutable; to accept our cases as they come to us, and, without selfish reserve, to strive to the uttermost to do our best. They are not inviting cases, these mammary tumours; no surgeon would select them, as his choice; no surgeon can desire them; but when the woman appeals to us for help; when she confides to us her dread secret,—for so it is, that as, in these awful visitations, some blinding infatuation too often bewilders the logical power of the surgeon, so no less does it bewilder the mental perception of the unhappy patient, and aggravates the greatest of physical calamities by some vague fear of discovery: as though a cancer, amongst its other terrors, involved the betrayal of a moral turpitude—let us not practice upon the error of her agony of mind, or talk in doubtful terms of primary or of secondary meaning, or "palter with her in a double sense," or puzzle her with vulgar technicalities, (the poor resource of the would-be wise, who feel not the significance of their mother-tongue, and prate as pedants, because they know not how to speak as gentlemen), but let us with candour and with courage—however we may, in common mercy, veil, in some sort, the impending future—let us honestly, as is our bounden duty, present her actual state to her own calmed judgment. It may be she will not accept the conditions, and take her chance of recovery, or her risk of failure—but when we have done this, whether she comply, or whether she refuse, it is not in woman's nature to say, in the worst alternative, "I have been betrayed."

But these cases are not so hopeless as vacillation and procrastination render them. I have said that at the Devon and Exeter Hospital our success is great. How so? Because, like men, we stand by women in their distress, and are not ruled by a callous prudence, or a heartless arithmetic.

DESCRIPTION OF PLATES.

PLATE I.

- Fig. 1,** Diagram of the vulva; the perineum totally destroyed.
The dots indicate the urethra and anus.
- Fig. 2,** Plan of chain-shot suture, shewing interrupted pressure.
- Fig. 3,** Plan of quill suture, shewing continuous pressure.
- Fig. 4,** Section of quill suture, shewing a doubled ligature.
- Fig. 5,** Section of chain-shot suture, shewing a single ligature.
- Fig. 6,** Diagram of restored perineum. The leaf-like appendages below indicate the two pieces of skin subsequently removed from the nates.
- Fig. 7,** Diagram shewing the perineum dragged back by the contraction of the cicatrices of the wounds formed on the nates.
- Fig. 8,** Pessary, to be supported by a hand; thus lifting the uterus from the perineum.

PLATE II.

- Fig. 1,** Flat nævus on the forehead of an infant, its base transfixed by four pins.
- Fig. 2,** Arm of a child, six years of age, contracted by a burn.
- Fig. 3,** The same arm nine months after division of cicatrices.
- Fig. 4,** The same arm two years and nine months after the operation, and one year and five months after the treatment had been entirely discontinued.

Nos. 2, 3, and 4, are lithographed from photographs of casts.

FIG. 4. FIG. 5.



Var. Stage

FIG. 3. FIG. 2.

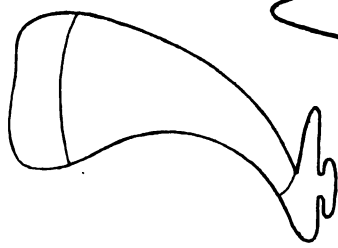
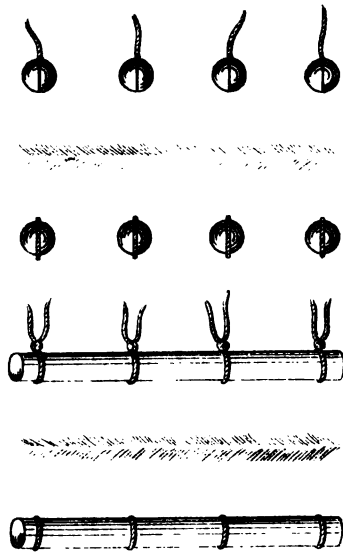


FIG. 8.

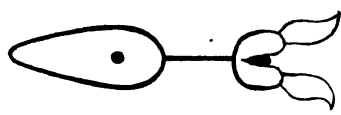


FIG. 7.

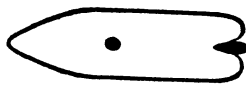


FIG. 1.

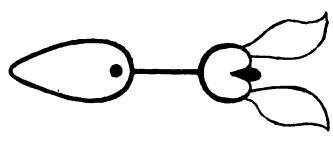


FIG. 6.

FIG. 2.

FIG. 3.

FIG. 4.



W. Spreng, lith. Exeter.

FIG. 1.



Nat. Size.

